

19981023.qrp v01\_n253.qrs.981023

Date: Fri, 23 Oct 1998 19:03:17 EDT

From: qrp-l@Lehigh.EDU

To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>

Subject: QRP-L digest 1253

QRP-L Digest 1253

Topics covered in this issue include:

- 1) [22925] RE: SGC 2020 Question  
by Denton Bramwell W7DB <Denton@Bramwell.Org>
- 2) [22926] Am I DX?  
by flyer@hooked.net
- 3) [22927] Re: Tayloe mixer  
by Dan Tayloe-P26412 <Dan\_Tayloe-P26412@email.mot.com>
- 4) [22928] Re: Identifying IC and Transistors..  
by Jeff <fantbb@yahoo.com>
- 5) [22929] Geomagnetic storm still active  
by Paul Harden <pharden@aoc.nrao.edu>
- 6) [22930] Re: Am I DX?  
by Ed Tanton <n4xy@att.net>
- 7) [22931] Re: Tayloe mixer  
by "Michael A. Gipe" <mgipe@reliablemeters.com>
- 8) [22932] Fox Leader Board  
by "Paul R. Valko" <prvalko@oakland.edu>
- 9) [22933] Re: FOX: Fox log for Oct 21, 1998 kv2x Fox  
by Wayne Alexander <walexan@ipa.net>
- 10) [22934] A45XR on now 0015Z  
by "Tim Cook" <timcook@erinet.com>
- 11) [22935] Re: Am I DX?  
by "Vincent Ferme" <vferme@sprint.ca>
- 12) [22936] Re: Tayloe mixer  
by "Michael A. Gipe" <mgipe@reliablemeters.com>
- 13) [22937] re: Low Loss Materials  
by Chuck Carpenter <w5usj@webwide.net>
- 14) [22938] Re: Flea at MIT  
by Myron China <chim@gwl.com>
- 15) [22939] Source of hi quality potentiometers?  
by Lee Jarvis <l2jarvis@mindspring.com>
- 16) [22940] FS: QRP, etc.  
by "Randy Moore" <wr.moore@worldnet.att.net>
- 17) [22941] Re: [22861] LOOP VS ZEPP  
by Dan Halbert <halbert@bbn.com>
- 18) [22942] Questionable signal around 7.098MHz  
by KC5TJA <kc5tja@topaz.axisinternet.com>
- 19) [22943] Re: [22861] LOOP VS ZEPP

- by Dan Halbert <halbert@bbn.com>
- 20) [22944] WB8RCR QSL program  
by PGHDTs@aol.com
- 21) [22945] [22871] Tayloe mixer  
by tayloe\_d@juno.com (Daniel R Tayloe)
- 22) [22946] Re: Flea at MIT  
by James Skalski <jskalski@buffnet.net>
- 23) [22947] Re: BCI on 7040?? Why?  
by "Steve Yates, AA5TB" <aa5tb@swbell.net>
- 24) [22948] FOX: Happy Hound Dance -- Thanks, Walt!  
by kb9iua@juno.com (Kevin L Anderson)
- 25) [22949] hounds  
by marion@montana.com
- 26) [22950] Ten-Tec 13XX QRP rigs for sale  
by "Karl Heimbach" <heimbach@concentric.net>
- 27) [22951] RE: FS QRP stuff  
by Dave Redfearn <n4elm@texoma.net>
- 28) [22952] antler  
by bkobie@webtv.net (patrick obrien)
- 29) [22953] San Diego eyeball? ITC 98 show  
by "rohre" <rohre@arlut.utexas.edu>
- 30) [22954] FOX  
by jbhenson@zebra.net (James Bartley Henson III)
- 31) [22955] Re: hounds  
by Bob Hightower <ki7mn@extremezone.com>
- 32) [22956] Tayloe mixer, built another.  
by Steven Weber <kd1jv@moose.ncia.net>
- 33) [22957] Re: Tayloe mixer  
by tayloe\_d@juno.com (Daniel R Tayloe)
- 34) [22958] Re: hounds  
by marion@montana.com
- 35) [22959] FOX: calling frenzy  
by gsurrency@juno.com (Gary L Surrency)
- 36) [22960] Fox & Hounds  
by Monte Stark <ku7y@dri.edu>
- 37) [22961] 40m conditions are abhorent!  
by KC5TJA <kc5tja@topaz.axisinternet.com>
- 38) [22962] 40m conditions are abhorent!  
by Jeff Johnson <jeff@san-dc.com>
- 39) [22963] HalfSquare Antenna  
by "Rud Merriam" <rmerriam@CSI.com>
- 40) [22964] Re: BCI on 7040?? Why?  
by SKIPNC90@aol.com
- 41) [22965] Thanks for toroids info  
by Paolo Sassoli <Paolo.Sassoli@italtel.it>
- 42) [22966] BOBTAIL FEED QUESTION  
by ARDUJENSKI@aol.com
- 43) [22967] FS TT Argonaut 509

by Henry Freedenberg <henryf@quartz.gly.fsu.edu>  
44) [22968] Re: HalfSquare Antenna  
by "L. B. Cebik" <cebik@utkux.utcc.utk.edu>  
45) [22969] FOX: one ragged, slightly damaged pelt on the wall!  
by Peter\_Simpson@ne.3com.com  
46) [22970] K8CV Fox  
by Chuck Carpenter <w5usj@webwide.net>  
47) [22971] How bout a Fox list  
by "Jerry W. O'Dell" <jwodel@ameritech.net>  
48) [22972] Re: How bout a Fox list  
by Wayne Alexander <walexan@ipa.net>  
49) [22973] Re: BCI on 7040?? Why?  
by "DJ Rock" <b2bn@hotmail.com>  
50) [22974] Fox: No Fox in Fairport, NY  
by Thomas Jennings <jennings@eng14.rochny.uspra.abb.com>  
51) [22975] Re Atlanticon  
by Joseph Mikuckis <k3chp@erols.com>  
52) [22976] RE: materials: low loss coil forms  
by "Karl Kanalz - Dallas" <kkanalz@optelinc.com>  
53) [22977] Re: Re Atlanticon  
by John Foote <w3gx@yahoo.com>  
54) [22978] Re: 40m conditions are abhorrent!  
by w4bws@juno.com (Donald E Sanders)  
55) [22979] Re: 40m conditions are abhorrent!  
by jeverhar@cse.1-3com.com  
56) [22980] Re: How bout a Fox list  
by n4js@pobox.com (John Sielke)  
57) [22981] Fox: Re: hounds  
by applitech@mcg.net (Claton Cadmus)  
58) [22982] HB Scope Probes  
by d.nordquest@juno.com (David A Nordquest)  
59) [22983] COR make 440 AMP unstable?  
by David Shalita <af389@lafn.org>  
60) [22984] RE: Am I DX?  
by "Karl Kanalz - Dallas" <kkanalz@optelinc.com>  
61) [22985] Re: How bout a Fox list  
by Monte Stark <ku7y@dri.edu>  
62) [22986] QRP/M ...I'm hooked!  
by =?ISO-8859-1?Q?"KB=D8VCC"?= <kb0vcc@rocketmail.com>  
63) [22987] FOX Re: 40m conditions are abhorrent! and an apology  
by Macstein@aol.com  
64) [22989] RE: PACTOR INFO-thanks to all  
by "GREGORY HEATH" <KB2QQM@email.msn.com>  
65) [22990] DX at last  
by Robert Tellefsen <n6wg@earthlink.net>  
66) [22991] Re: Any body built any of the Vectronics kits??  
by Jim Lyons <jlyons@CAM.ORG>  
67) [22992] filtering FOX posts

by "Richard E. Robinson" <rerobins@email.uncc.edu>  
68) [22993] Solar Energy materials  
by Roger Hightower <n7kt@earthlink.net>  
69) [22994] Fox: where to call  
by Vic Rosenthal <rakefet@rakefet.com>  
70) [22995] Re: HB Scope Probes  
by "Brad Hernlem" <alihernlem@hotmail.com>  
71) [22996] fox:report  
by "Edward A Kwik jr" <eakwikjr@hti.com>  
72) [22997] apollo beep circuit  
by Arjen Raateland <Arjen.Raateland@vyh.fi>  
73) [22998] Re: Tayloe mixer  
by Glen Leinweber <leinwebe@mcmail.cis.McMaster.CA>  
74) [22999] Re: How bout a Fox list  
by Joe Gervais <vole@primenet.com>  
75) [23000] Re: where to call  
by "Steve Sorrell" <ap036@detroit.freenet.org>  
76) [23001] Fox (read DX) Procedure  
by Marty Rosenzweig <marty@mht.com>  
77) [23002] Joy Oh Joy!  
by "Steve Sorrell" <ap036@detroit.freenet.org>  
78) [23003] FOX: Announcement - 28 Oct 0100-0300 UTC de N2TO  
by "Kevin F. Glynn" <kfglynn@prodigy.net>  
79) [23004] Re: where to call  
by "Kevin F. Glynn" <kfglynn@prodigy.net>  
80) [23005] Fox solution  
by "Jerry W. O'Dell" <jwodel@ameritech.net>  
81) [23006] Re: 40m conditions are abhorrent!  
by KC5TJA <kc5tja@topaz.axisinternet.com>  
82) [23007] Re: 40m conditions are abhorrent!  
by KC5TJA <kc5tja@topaz.axisinternet.com>  
83) [23008] all-band CW XCVR w/AD9850 VFO  
by Jim Glover <psykey@okcforum.org>  
84) [23009] Re: Tayloe mixer  
by "Michael A. Gipe" <mgipe@reliablemeters.com>  
85) [23010] Re: filtering FOX posts  
by KC5TJA <kc5tja@topaz.axisinternet.com>  
86) [23011] Re: Fox (read DX) Procedure  
by KC5TJA <kc5tja@topaz.axisinternet.com>  
87) [23012] K8CV Fox  
by "Richard E. Robinson" <rerobins@email.uncc.edu>  
88) [23013] re:where to call  
by Ronald\_A\_Pfeiffer@res.raytheon.com  
89) [23014] Want a simple rig?  
by "Frank G3YCC" <g3ycc@g3ycc.prestel.co.uk>  
90) [23015] Fox for 30 Oct 98  
by Monte Stark <ku7y@dri.edu>  
91) [23016] Re: HB Scope Probes

by W7LS <w7ls@blarg.net>  
92) [23017] Re: Fox solution  
by "Michael A. Gipe" <mgipe@reliablemeters.com>  
93) [23018] Killing foxes  
by "Jerry W. O'Dell" <jwodel@ameritech.net>  
94) [23019] Re: 40m conditions are abhorent!  
by Jeff Johnson <jeff@san-dc.com>  
95) [23020] CQWW - SSB QRP  
by Jim <kj5tf@madisoncounty.net>  
96) [23021] ARRL Sweepstakes is almost here....  
by Tom Cooper <cooper@gmpvt.com>  
97) [23022] Re: Want a simple rig?  
by KC5TJA <kc5tja@topaz.axisinternet.com>  
98) [23023] Re: Killing foxes  
by KC5TJA <kc5tja@topaz.axisinternet.com>  
99) [23024] Re: CQWW - SSB QRP  
by KC5TJA <kc5tja@topaz.axisinternet.com>  
100) [23025] Re: 40m conditions are abhorent!  
by Paul Harden <pharden@aoc.nrao.edu>  
101) [23026] antenas and condos, some good news  
by Scott Howell <showell@hq.nasa.gov>  
102) [23027] Re: ARRL Sweepstakes is almost here....  
by Roger Hightower <n7kt@earthlink.net>  
103) [23028] Re: Killing foxes  
by "Brian.Buydens@usask.ca" <buydens@duke.usask.ca>  
104) [23029] Re: antenas and condos, some good news  
by Ed Tanton <n4xy@att.net>  
105) [23030] Re: ARRL Sweepstakes is almost here....  
by Tom Cooper <cooper@gmpvt.com>  
106) [23031] Re: ARRL Sweepstakes is almost here....  
by Bob Patten <n4bp@bc.seflin.org>  
107) [23032] Re: Tayloe mixer  
by Dan Tayloe-P26412 <Dan\_Tayloe-P26412@email.mot.com>  
108) [23033] Re: CQWW - SSB QRP  
by "Peter Hardie" <hardie@shaw.wave.ca>  
109) [23034] Subj: Re: Fox solution  
by PDouglas12@aol.com  
110) [23035] Re: 40m conditions are abhorent!  
by Andy Fox <foxes@theriver.com>  
111) [23036] FS: HW-8  
by "Floyd Soo, W8RO" <hires@rust.net>  
112) [23037] Re: CQWW - SSB QRP  
by Richard Sherman <srichard@aldus.northnet.org>  
113) [23038] Re: Killing foxes  
by KC5TJA <kc5tja@topaz.axisinternet.com>  
114) [23039] Reminder: 10K 10-Turn Pot Group Buy  
by "Jerry McCollom W0MC" <w0mc@hotmail.com>  
115) [23040] Re: Fox for 30 Oct 98

by Monte Stark <ku7y@dri.edu>  
116) [23041] Re: 40m conditions are abhorent!  
by KC5TJA <kc5tja@topaz.axisinternet.com>  
117) [23042] Re: Tayloe mixer  
by "Michael A. Gipe" <mgipe@reliablemeters.com>  
118) [23043] Z Match Cap Question  
by Paul Kaczmarek <catmandu@freewwwweb.com>  
119) [23044] Re: CQWW - SSB QRP  
by "Peter Hardie" <hardie@shaw.wave.ca>  
120) [23045] Re: Tayloe mixer  
by Steven Weber <kd1jv@moose.ncia.net>  
121) [23046] Fox calling procedure feedback welcome  
by Dick Schneider <rschneid@ix.netcom.com>

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Date: Thu, 22 Oct 1998 17:01:25 -0600  
From: Denton Bramwell W7DB <Denton@Bramwell.Org>  
To: "'qrp-l@lehigh.edu'" <qrp-l@lehigh.edu>  
Subject: [22925] RE: SGC 2020 Question  
Message-ID: <5103124387F8D11199DD00A0C925E4B91702@SQLMAILSERVER>  
MIME-Version: 1.0  
Content-Type: text/plain

>>received my long awaited 2020. Everything seems to be O.K.  
except the frequency display. It is usually off 2 kc's up or down.  
<<  
snip

This is a common problem. If you let it warm up for about 20 minutes,  
you should be able to follow the manual procedure and get it within 100  
Hz or so. Don't worry, it does not involve opening the case.

-----  
Date: Thu, 22 Oct 1998 14:57:59 +0000  
From: flyer@hooked.net  
To: qrp-l@lehigh.edu  
Subject: [22926] Am I DX?  
Message-ID: <199810222302.QAA28136@mom.hooked.net>

If YV1DIG (Venezuela) calls CQ DX on 30 meters, am I DX to him/her?

Mark Smith KF6PIL Pleasanton, CA

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Date: Thu, 22 Oct 1998 16:15:30 -0700  
From: Dan Tayloe-P26412 <Dan\_Tayloe-P26412@email.mot.com>  
To: qrp1 <qrp-1@lehigh.edu>  
Subject: [22927] Re: Tayloe mixer  
Message-ID: <362FBC92.1C024431@email.mot.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

>Dan mentions that the mixer has a gain close to one.  
>That is, the audio output is directly proportional  
>to the RF input amplitude (commutated between the  
>four output channels). So really, the output signal  
>from the two "in-phase" (I) capacitors is one-half of the  
>RF signal, and the output signal from the two  
>"quadrature" (Q) capacitors is one-half of the RF  
>amplitude as well. When you combine the I and Q  
>signals (after 90 degree audio phase shift), THEN  
>you get a gain of one. I think Dan's point was that  
>this mixer has very little net signal LOSS.

Actually, the voltage observed across *each* of the four  
detector caps is close (0.9x?) to the peak RF input.

The mixer therefore has no gain, and a little bit loss.  
Remember, I am talking loss in *detected voltage*, not  
in *used power*. In the passband, the detector looks  
like an open circuit, and so draws no real power.

When I use an op-amp to differentially sum two oppositely  
phased outputs together (such as 0° or 90°), I pick  
up some gain that way, and also cancel out common mode  
noise.

This circuit works great in a DC receiver since the first  
audio stage looks into a decently large cap to ground  
(0.33 or more). I have 115 db of audio gain, and it is  
stable.

- Dan, N7VE

-----  
Date: Thu, 22 Oct 1998 16:37:13 -0700 (PDT)

From: Jeff <fantbb@yahoo.com>  
To: qrp-1@Lehigh.EDU  
Subject: [22928] Re: Identifying IC and Transistors..  
Message-ID: <19981022233713.18839.rocketmail@send1e.yahoomail.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii

Also try the free IC Master Online;

<http://www.icmaster.com>

Just found that today!

Jeff  
AB6MB  
#65

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DO YOU YAHOO!?  
Get your free @yahoo.com address at <http://mail.yahoo.com>

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Date: Thu, 22 Oct 1998 17:44:51 -0600 (MDT)  
From: Paul Harden <pharden@aoc.nrao.edu>  
To: qrp-1@Lehigh.EDU  
Subject: [22929] Geomagnetic storm still active  
Message-ID: <Pine.SOL.3.91.981022171645.15411A-100000@zia>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

There was a coronal mass ejection, associated with a solar flare on Oct. 15th, which triggered a MAJOR geomagnetic storm on Oct. 18-19. The A-index was 50 and 52 on those two days respectively.

However, the current A-index remains in the 20's, indicating active conditions. This is being caused by a coronal hole, described below.

The current solar flux is 115 ... nothing to brag about.

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
SDF NUMBER 295 ISSUED AT 2200Z ON 22 OCT 1998  
IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 21/2100Z  
TO 22/2100Z: SOLAR ACTIVITY WAS LOW.



IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 21/2100Z TO 22/2100Z:  
THE GEOMAGNETIC FIELD REMAINED UNSETTLED TO ACTIVE UNDER THE  
INFLUENCE OF A HIGH-SPEED STREAM ASSOCIATED WITH THE NORTHERN POLAR  
CORONAL HOLE. THE GREATER THAN 2 MEV ELECTRON FLUX WAS HIGH.

A coronal hole, this one near the sun's northern pole, allows gobs of particle radiation to escape. It is not necessarily dense, but does cause an increase in the solar wind. The effect the solar wind has on the earth, in terms of upsetting our geomagnetic field to cause noisy HF conditions, is based on both the SPEED of the solar wind, and the DENSITY (electrons per cubic cm).

The average solar wind is around 200-400 km/sec. and the density factor around 2-3 (based on the electron density per cubic cm). On Oct. 18th, when the solar wind shock wave of the Oct. 15th CME hit us, solar wind was about 330 km/sec. (nothing usual), but the density suddenly went to 41. This increased density, not the solar wind speed, is what threw our magnetic field into motion to generate enhanced noise levels.

Today, the solar wind speed is 510 km/sec., or above average, but the density is only 3, or exactly normal. This is the "signature" of a coronal hole ... normal density but an increase in velocity. It is the velocity of the solar wind that is causing our geomagnetic field to wiggle this time, generating noise, but the low density means that few extra particles are being pumped into our ionosphere. This is good for Jim AL7FS in Alaska. It's when a solar flare or CME pumps additional charged particles into our magnetic field, which gets sucked into the polar regions, that he gets wiped out. These additional particles ABSORB radio energy in the polar regions, and hence called a POLAR CAP ABSORPTION event, or PCA. Between the PCA and noisy conditions, near black out conditions can easily occur in the higher latitudes, while us down in the lower 48 are oblivious to it all.

The coronal hole on the sun still exists, and as long as it is pumping charged particles to keep the solar wind moving faster than normal, our geomagnetic field will be unsettled to active. Not stormy, but kinda noisy and soft bands, 30M and below. Like a low grade fever.

Incidentally, this increase in the solar wind density the other day is what prompted scientists to issue the auroral alert on monday. However, while the increased density was sufficient to trigger a major geomagnetic storm, it was not sufficiently high to trigger auroral activity (although aurora's were seen over Norway, Russia, etc. that evening, but not in lower VE or US).

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS  
EXPECTED TO BECOME MOSTLY UNSETTLED TO QUIET WITHIN THE NEXT TWO  
DAYS.

Mostly because the coronal hole is diminishing, AND moving along with the rotation of the sun so the outgassing is no longer directed at the earth.

IV. PENTICTON 10.7 CM FLUX

OBSERVED               22 OCT 115  
PREDICTED   23 OCT-25 OCT 115/115/115  
90 DAY MEAN           22 OCT 132

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 21 OCT 016/023  
ESTIMATED AFR/AP 22 OCT 016/020  
PREDICTED AFR/AP 23 OCT-25 OCT 015/015-010/012-010/010

GL, Paul NA5N

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Date: Thu, 22 Oct 1998 19:40:25 -0400  
From: Ed Tanton <n4xy@att.net>  
To: flyer@hooked.net  
Cc: "Low Power Amateur Radio Discussion" <qrp-1@lehigh.edu>  
Subject: [22930] Re: Am I DX?  
Message-ID: <3.0.5.32.19981022194025.00bf0dc0@postoffice.worldnet.att.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

It depends... strictly speaking, DX is anyone not in your own country... but there are SOME DXers who do not consider US stations DX... don't worry about it-unless you are SPECIFICALLY excluded. The one place to exercise caution is when the DX station is making/following a list. Often, in that case, US stations are distinguished from DX, but also often, to YOUR advantage-for in that case they usually then take US stations by call area-which helps... well... it would help if you were a 7 anyway!!!

At 02:57 PM 10/22/98 +0000, flyer@hooked.net wrote:  
>If YV1DIG (Venezuela) calls CQ DX on 30 meters, am I DX to him/her?  
>  
>Mark Smith KF6PIL   Pleasanton, CA  
>  
>  
73

-----  
Ed Tanton   N4XY

EMAIL: n4xy@att.net

189 Pioneer Trail

Marietta, GA 30068-3466

TEL: (770)579-3933 V/MBX/FAX

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INTERESTS: QRP BoatAnchors Test Equipment Photography  
CW: 99.9% Mercury Paddle # 0214 QRP to 150W: 95%

~~~~~  
"Think you can, think you can't: either way you're right!" Henry Ford  
~~~~~

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Date: Thu, 22 Oct 1998 16:45:36 -0700  
From: "Michael A. Gipe" <mgipe@reliablemeters.com>  
To: <leinwebe@mcmail.cis.mcmaster.ca>  
Cc: "QRP-L list" <qrp-l@lehigh.edu>  
Subject: [22931] Re: Tayloe mixer  
Message-ID: <05ec01bdfe16\$13f438f0\$140a0a0a@double\_trouble.reliablemeters.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

Glen --

I think we're in agreement.

>>Yes. I've read conflicting reports on how well practical  
>>implementations of switching mixers perform in real life. Getting  
the  
>>phases right on is very important. I haven't tried a divide-by-four  
>>phase shifter in a mixer.  
>>  
> Well, I've spent some time at getting quadrature LO signals.  
>Have a L.O. circuit (for conventional mixers) that requires a 2x  
>frequency rather than 4x (and still provides quadrature square  
waves).  
>Getting phase matching isn't easy. I used ECL chips and still ran  
into  
>problems with different rise/fall times that had to be trimmed out  
>with a variable pot. Mind you, I was after phase error of 0.3 degrees  
>over the whole H.F. bandwidth.

That's the impression I get from others, too.

>

>> If you double the caps, you lower the  
>>recovered output, narrow the bandwidth, increase the maximum signal  
>>level (output referred), and lower the input impedance. Does all  
this  
>>stuff balance out to no change?  
>  
> Here's the way i see it: a 50 ohm antenna Z is commutated four  
>ways to supply four "integrating" capacitors. So each capacitor sees  
>200 ohm source resistance (neglecting FET ON resistance). So I figure  
>the audio bandwidth would be 2400 Hz ( $1/(2\pi \times 200 \times 0.33\mu\text{f})$ ). Dan  
suggested  
>this'd be about right. Increasing caps would narrow the bandwidth.  
>But I don't see that it'd decrease recovered output, as long as  
output  
>frequency is below the RC corner frequency.  
> As an example, consider the limit where output frequency is  
>zero Hertz (LO freq = RF freq, and they're in phase). The "I"  
capacitors  
>charge to a DC voltage equal to the RMS value of the RF amplitude:  
one  
>to a positive voltage, the other to a negative voltage.  
>The "Q" capacitors remain at zero volts.  
>The "I" capacitors charge exponentially with a time-constant of  $RC/4$   
>where R is the antenna resistance and C is  $0.33\mu\text{f}$ .

I agree. This is absolutely right. Transforming the 50 ohms to 200  
ohms via sampling is a good analytical approach. The BW calcs are  
correct. At DC, the I channel will charge to the average value of the  
RF amplitude, which in this situation, is the same as the RMS. At  
other than DC -- that is, when the RF freq is not exactly the same as  
the LO freq -- you will see a changing voltage on the caps. Pick  
the +I cap. You can visualize this as a phasor rotating at the  
difference frequency. Its magnitude will be  $X_c / (X_c + 200)$ .  
Therefore at the corner frequency, the voltage magnitude will be 1/2  
of the RF average and the rotational frequency will be  $f_{rf} \pm f_{lo}$ .

Basically, it functions like a mixer followed by a low pass filter.  
No surprises. :-) I guess the way I said it in the first message  
made it sound unique, but it isn't really.

>  
> Chris mentions that "R" in a switched capacitor filter is  
>parasitic. But there's ALWAYS gotta be a source resistance in this  
>mixer (from the antenna). Guess I'm still missing something, or this  
>mixer is different from conventional commutating filters.

I guess that the difference is the fact that Dan took a problem and

turned it into a feature. From Chris's comments, I gather that the parasitic R in the switched filter adds an extra pole to the desired response which is otherwise set by the cap stages. In Dan's mixer, he figured that this pole was actually desirable for the application. So instead of eliminating the R, he fixed it (at 50 ohms + Rs) so he could control the LPF response. Nice.

What about capacitor matching for opposite sideband suppression?

This is fun stuff. It sure is nice to have people to debate the merits with. Thanks, Glen (and the others).

Mike K1MG

-----  
Date: Thu, 22 Oct 1998 20:10:13 -0400 (EDT)  
From: "Paul R. Valko" <prvalko@oakland.edu>  
To: QRP List <qrp-l@lehigh.edu>  
Subject: [22932] Fox Leader Board  
Message-ID: <Pine.OSF.3.95.981022200812.12339C-1000000@vela.acs.oakland.edu>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Here are seven nervous Hounds.... each tied with ALL FIVE foxii worked!

NU4N  
K1MG  
W5TFB  
N1FN  
KB0PTE  
K0EVZ  
N1TP

Hope you all bag one tonight!

73! =paul= W8KC  
Collector of Ten\*Tecs and other fine plastics

<<http://www.acs.oakland.edu/~prvalko>>

-----  
Date: Thu, 22 Oct 1998 19:10:20 -0500  
From: Wayne Alexander <walexan@ipa.net>  
To: jennings@eng14.rochny.uspra.abb.com  
Cc: qrp-1@lehigh.edu  
Subject: [22933] Re: FOX: Fox log for Oct 21, 1998 kv2x Fox  
Message-ID: <199810230010.TAA25519@ns3.ipa.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

> 9 0223 k0pte 559 559 mo Wayne 1058  
>12 0236 kb0pte 599 559 mo wayne 1058 <----DUP  
Sorry but did not think that you had got it and you had dropped out into  
the QRM. Which one do you want to count.the first one has the wrong call  
and that you were working someone else for a minute. Oh well it was fun.  
You did a great job. Have a great day.  
73,  
KB0PTE  
Wayne  
FISTS # 4907  
QRP-L # 1058

-----  
Date: Fri, 23 Oct 1998 00:16:46 -0400  
From: "Tim Cook" <timcook@erinet.com>  
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [22934] A45XR on now 0015Z  
Message-ID: <023701bdfe3b\$f348c500\$1d765acf@timcook.erinet.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

A45XR on 14.012 @ 0015Z  
worked him with the Sierra @1.25 watts

he is very patient and works hard to get a weak signal..

good luck, a new one for me QRP

Tim  
NZ8J

-----  
Date: Thu, 22 Oct 1998 20:20:26 -0400  
From: "Vincent Ferme" <vferme@sprint.ca>  
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [22935] Re: Am I DX?  
Message-ID: <00a101bdfe1a\$efb40880\$629094d1@vince>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

DX means different things to different people. Let's say you are using microwatt or milliwatt power, wouldn't a NY to CA contact for example be DX? I think so.

What about a contact with South America on topband using 100 W output and a dipole? I also think so.

I consider to be DX any contact that is out of the ordinary taking into account the operating conditions: low power, poor antenna, bad propagation among others.

Most people will not agree with my criteria, but unless the other guy defines what he considers to be DX, I would say go for it.

73 de Vince, VE3VFN.

-----  
Date: Thu, 22 Oct 1998 17:20:04 -0700  
From: "Michael A. Gipe" <mgipe@reliablemeters.com>  
To: <Dan\_Tayloe-P26412@email.mot.com>, "Low Power Amateur Radio Discussion" <qrp-1@lehigh.edu>  
Subject: [22936] Re: Tayloe mixer  
Message-ID: <05ff01bdfe1a\$e49644e0\$140a0a0a@double\_trouble.reliablemeters.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

Dan --

>Actually, the voltage observed across \*each\* of the four  
>detector caps is close (0.9x?) to the peak RF input.

See if my reasoning makes any sense. Mixing an RF signal with a LO which is offset by a small amount will yield a varying voltage on each cap. Each cap will integrate the voltage applied to it for one quarter of the LO cycle. The maximum voltage on this cap will be when the integration takes place at the peak of the RF signal, i.e. from  $\pi/4$  to  $3\pi/4$ . A quick calculation shows this value to be 0.9002. (integral of sin, evaluated from  $\pi/4$  to  $3\pi/4$ , divided by  $\pi/2$ ) This value will be further reduced by the roll-off of the low pass filter function. At what sidetone frequency did you measure this value?

Mike K1MG

-----  
Date: Thu, 22 Oct 1998 19:54:16 -0500  
From: Chuck Carpenter <w5usj@webwide.net>  
To: n3fel@juno.com (Howard D Rubin)  
Cc: qrp-1@Lehigh.EDU  
Subject: [22937] re: Low Loss Materials  
Message-ID: <3.0.1.32.19981022195416.0068fa3c@mail.webwide.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Howard,

Another information source is "Reference Data for Engineers: Radio, Electronics, Computer, and Communications" published by Sams (originally by IT&T).

It lists dissipation factors of most insulating materials up to  $2.5 \times 10$  to the 10th Hertz.

>Polyphenylene Sulfide Glass-reinforced R-4 which has a dissipation  
>factor of 0.0014 at 1 MHz.

>Polystyrene Polymer which has a dissipation factor of 0.0001-0.0003 at 1KHz.

The base materials for these plastics are listed but not as used with other materials. The dissipation factors are low at the highest frequencies tested



Why not use teflon? It has a lower dissipation factor and is likely to be more readily available in the form factors you may be using. Teflon also has a lower dielectric constant which will keep the distributed capacitance lower.

72/73 -- Chuck, W5USJ, EM22cv, Point, Rains County - Eagle Capital of Texas

-----  
Date: Thu, 22 Oct 1998 19:05:46 -0600 (MDT)  
From: Myron China <chim@gw1.com>  
To: qrp-1@Lehigh.EDU  
Subject: [22938] Re: Flea at MIT  
Message-ID: <199810230105.TAA07473@gp-odin.gw1.com>

i managed to find the last MIT flea market for the year and thought i would post this since information about it was scarce.

the FLEA at MIT occurs every third sunday from april thru october. the location is a gray brick(?) 4 story parking garage in cambridge, massachusetts just off (south of) main street between albany and and vassar streets. it's actually on vassar but the free parking lot is on albany(?). it runs from 9am to 2pm and cost \$4 to get in.

my guess is that it was about 20% ham stuff and 80% electronic and computers & other stuff. food, drink and potties was available. after checking out the 2 outside parking lots you went inside the parking garage and walked up and down the ramps.

personally, i didn't think the asking prices were that great (higher cost of living in boston?) but then again i wasn't all that serious since i would have to lug stuff home on the airplane with me. also the selection wasn't that great unless you were into the more exotic surplus test and lab equipment (i think i saw a complete stainless steel & glass vacuum chamber - or was that a particle accelerator? ;).

xyl said she never saw so many geeks in one place. it figures.

myron china

-----  
Myron China (KB0LMQ) myron.china@gw1.com  
ISIS Oracle Database Administrator Ph:(303)689-3981  
Great-West Life Assurance Co. Fax:(303)689-4850  
Englewood, CO cqc #53 qrp-1 #113

-----  
Date: Thu, 22 Oct 1998 21:08:36 -0400  
From: Lee Jarvis <l2jarvis@mindspring.com>  
To: qrp-1@Lehigh.EDU  
Subject: [22939] Source of hi quality potentiometers?  
Message-ID: <3.0.1.32.19981022210836.00713620@mindspring.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

I'm trying to find a high quality LINEAR potentiometer for tuning my SW-40+.

The Radio Shack pots are just awful. There is little actual difference between linear and audio taper on these things. One 100K pot from RS showed virtually no change during its first 90 degrees of rotation! At a \$1.49 though, I guess you get what you pay for.

I have a Spectrol 10-turn unit, but that is gross overkill as I'm only tuning a <50Khz range.

Anybody know of a source for Allen-Bradley, Spectrol (157 or 159 series) or similar potentiometers?

Also, has anybody got anything good or bad to say about Clarostat?

Thanks and 72,  
Lee Jarvis - KN4VN

-----  
Date: Thu, 22 Oct 1998 20:16:46 -0500  
From: "Randy Moore" <wr.moore@worldnet.att.net>  
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [22940] FS: QRP, etc.  
Message-ID: <0000001bdfe22\$cd352fc0\$5402430c@wrmoorerpc>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

I've decided I need to part with the following stuff. First come first served. Prices include shipping in CONUS.

1. OHR-400 with built-in 8044 keyer and external DD-1 frequency counter -

\$300

QRP xcvr covering 80, 40, 30 and 20 with adjustable output up to more than 5w on each. This particular radio was built by AC4HF and was featured in the QRP rig review in QST a couple of years ago. Its appearance and functionality are excellent. It made Fox appearances the last 2 years!

2. An unbuilt AT-11 (QRO) automatic antenna tuner kit, including enclosure, with upgrade parts for the latest version - \$175. I've not opened the parts bags, so its just like LDG delivered it to me. I also have the QRP version (I'm keeping it), and I assume the QRO version (5-100w) works just as well)
3. MFJ-418 Pocket Morse Code Tutor - \$45. Works nicely to get your code speed up while you're "mobile."
4. A Compaq C-140 Windows CE Handheld Computer, with 14.4kb PCMCIA modem, docking port with AC adapter, and nice carrying case - \$150. This nifty "QRP-sized" machine has been upgraded to Windows CE 2.0 and has 6MB RAM and 6MB ROM. Runs on 2 AA batteries for a long time. I used it mostly for reading e-mail when on the road, but it comes with "Pocket" versions of Microsoft Word and Excel and works very nicely as a companion to a desktop computer.

72,  
Randy, KS4L

-----  
Date: Thu, 22 Oct 1998 21:17:50 -0400  
From: Dan Halbert <halbert@bbn.com>  
To: ARDUJENSKI@aol.com  
Cc: qrp-l@lehigh.edu, nwq-l@scn.org  
Subject: [22941] Re: [22861] LOOP VS ZEPP  
Message-ID: <199810230117.VAA03279@franklin.bbn.com>

Addendum: here is an old message I sent to someone else about 10 years ago my 80m vertical loop:

====

I have an 80m loop antenna too. I was inspired to put one up after reading the October '84 QST article by W1FB and W1SE (?). Mine is trapezoidal in shape, in a vertical plane East-West, and corner fed with 450 ohm ladder line and a transmatch. After I put this antenna up, I stopped worrying about antennas! As you've found too, I think it's a great performer. It is often 2

S-units better than my Cushcraft R-3 (1/2 wave 20/15/10 remote tuned vertical). The Cushcraft was about 2 S-units better than some dipoles and inverted-V's I had (but that was in Berkeley, CA; my present QTH is in Sudbury, MA).

I have the corners suspended from tall trees. I used 10 gauge stranded insulated wire I got from a surplus place. The wire runs through some stainless-steel marine pulleys at the non-feed corners; the pulleys are held up by ropes. The bottom of the antenna is about 20 feet up. The upper part is from 70-80 feet to about 50 feet (it slopes). The antenna is strong enough that it held up some downed limbs after Hurricane Gloria, and kept them from falling on the house!

One interesting effect I noted is that it was important to cut the loop for 3.5 MHz, not 4 MHz, apparently because the harmonics of 3.5 Mhz are closer to the ham bands. I once shortened it by 30 feet in an effort to get one end higher, and I had much more trouble getting it to tune up.

Regards,  
--Dan, KB1RT

-----  
Date: Thu, 22 Oct 1998 18:18:50 -0700 (PDT)  
From: KC5TJA <kc5tja@topaz.axisinternet.com>  
To: qrp-l@Lehigh.EDU  
Subject: [22942] Questionable signal around 7.098MHz  
Message-ID: <Pine.LNX.3.96.981022181604.12241A-100000@amethyst.axisinternet.com>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

There seems to be a slow CW stream of code on or near 7.098MHz. I've been listening to it for several days now (makes for fairly decent CW practice), but it consists of a series of random numbers, occasionally random letters, and mostly sentences which make no sense. Can someone verify this please? Have I found some kind of beacon? As of yet, I have NOT heard any callsigns or other station identification, and I know I've listened for much longer than 10 minutes each time.

Thanks.

```
=====
KC5TJA/6      | -| TEAM DOLPHIN |-
DM13          | Samuel A. Falvo II
QRP-L #1447   | http://www.dolphin.openprojects.net
Oceanside, CA | .....
```

-----  
Date: Thu, 22 Oct 1998 21:25:01 -0400  
From: Dan Halbert <halbert@bbn.com>  
To: qrp-1@Lehigh.EDU, nwq-1@scn.org  
Subject: [22943] Re: [22861] LOOP VS ZEPP  
Message-ID: <199810230125.VAA03281@franklin.bbn.com>

Oops, sorry folks, I meant not to copy the mailing lists on that last message about vertical loops. It was an addendum to a private response to the original query, and hence is a little out of context. Hope it was of mild interest.

Dan, KB1RT

-----  
Date: Thu, 22 Oct 1998 22:06:12 EDT  
From: PGHDTs@aol.com  
To: qrp-1@Lehigh.EDU  
Cc: jjmcd@tm.net  
Subject: [22944] WB8RCR QSL program  
Message-ID: <457afdf0.362fe494@aol.com>  
Mime-Version: 1.0  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit  
Content-Transfer-Encoding: 7bit

This program is great. Just made a bunch of basic QSL cards for half the price of those from a printer.

I used Wausau card stock in assorted colors (65# cover weight) from OfficeMax at \$8.49 for 100 sheets.

While the program design is still being developed for advanced features I would suggest that you give it a try.

I want to thank John for his fine effort. I am sure he spent many hours in designing the program. It is greatly appreciate that he provided it to us at no charge.

I tried to list this before but it would not show up at my computer , but if it actually listed and this a repeat sorry for the QRN .

73 Don KB3CIL

-----  
Date: Thu, 22 Oct 1998 19:18:09 -0700  
From: tayloe\_d@juno.com (Daniel R Tayloe)

To: mgipe@reliablemeters.com, qrp-1@lehigh.edu  
Subject: [22945] [22871] Tayloe mixer  
Message-ID: <19981022.192136.18414.19.tayloe\_d@juno.com>

Hi Mike!

Dan --

The Tayloe Mixer looks like a dynamite innovation. Well done.

A few comments/questions:

>It seems to me that good opposite sideband rejection would be very  
>dependent on the match between the integrating capacitors (and series  
>resistors, but those are easier to match). A 1% match gets you a  
>little better than 40 dB, assuming that the switches track well and  
>are pretty linear at the signal levels involved. Getting beyond that  
>starts putting some pretty tight requirements on the match. However,  
>once matched, it should be pretty much independent of frequency. Have  
>you played with this? You also need good low-D caps.

I did not bother to match the any caps. The type of cap seems to be important, as it needs to be low impedance to RF, as well as being low loss. I found polystyrene caps worked well. I have a bunch of miniture 0.15 uf 5% ones in my junk box. I noticed Digikey has 5% tantalums that might work great also, and are small and cheap to boot.

Matching was not a problem. Look at an R2. The "balance" pot takes care of minor gain variations between the I & Q strips. Secondly, since I am doing only CW, I use only two sections of his three second delay.

The delay section is neat! It has constant amplitude, an a phase roll off that starts (starts rolling off) at the R/C pole set by one of the two section, and finishes (stops rolling off) at the R/C pole set by the second

op-amp. Use 5% parts for the one of the delay strips. That sets a delay frequency breakpoint and slope. The second strip needs to start falling off at a frequency either lower or higher such that the phase roll

off is 90 degrees differnt. I just need two small trimmers in the R section

of the phasing of one strip to allow me to tweak the second strip to get exactly the right two roll offs.

Through this adjustment, I am also able to "fix" small differences in roll off in the detector. It seems to work great! I get better than 45 db of rejection between 300 - 800 Hz. The main secret is that I can touch things up with two delay trimmers and the balance control.

>It also seems that a limiting factor at the low signal end would be  
>charge injection in the FET switches. Keeping the integrating  
>impedance low helps here (big caps, small Rs), but this puts more  
>burden on the FET switch characteristics, requiring closer  
>on-resistance tracking, and larger transistor structures which lead to  
>more charge injection -- oops. I don't know what the specs on the CBT  
>mux are. Have you calculated the effects on the performance due to  
>the switch limitations? This would be helpful for translating the  
>design to other implementations, including ASIC.

This is my hobby, not my profession. I do a little bit of simulation,  
and a moderate amount of math to do my designs. As I said, I seem  
to be able to adjust these effects out. The FET has an on resistance of  
5 ohms, with some small variation. I just absorb that into the 50 ohms  
I use at the front of the switching IC.

>Speaking of ASICs, it seems that this would be a good candidate for an  
>IC, especially if it was possible to scale the caps down to where they  
>could be implemented on-chip. On second thought, junction based caps  
>would probably be miserable due to varacter effects, so the only  
>usable integrated caps would be MOS, which probably means they  
>couldn't be big enough. Where's Chris Trask when you need him?

It would be nice to absorb an oscillator, a 2 bit counter, switch bias  
and the I & Q pre-amp op-amps into a single package. I am sure they  
could easily extend the frequency as well.

>Another thought I had is that large signal handling ability is  
>inversely proportional to bandwidth! What a wild concept. The lower  
>the bandwidth, the lower the gain, and the lower the input impedance.  
>Interesting. I'm not sure what this all implies, though. Your  
>thoughts?

There is no gain to this mixer. The caps end up with about 0.9x of the  
peak RF input, less the R/C frequency roll off, but you can set that to  
be whatever you want. I do get a 1.8x gain when I differentially  
combine opposing outputs (0&180, 90&270).

>I wonder if there would be any problems with DC bias currents in the  
>switches under very low signal level conditions. This would be where  
>the input signal, including noise, is smaller than the leakage  
>currents in the FET. You might be gradually accumulating DC offset.  
>I guess this would depend a lot on the source impedance, so a low DC  
>source impedance would fix it (choke to ground). Does this make  
>sense?

I tried to bias both sides of the switch to the same voltage to see if this made any improvement. It did not, at least while using 4.5 nV/Hz op-amps.

>This is exciting stuff, Dan.

>Mike K1MG

The flood of email has at least been interesting!

- Dan, N7VE

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Date: Thu, 22 Oct 1998 22:23:04 -0400 (EDT)  
From: James Skalski <[jskalski@buffnet.net](mailto:jskalski@buffnet.net)>  
To: Myron China <[chim@gwl.com](mailto:chim@gwl.com)>  
Cc: Low Power Amateur Radio Discussion <[qrp-1@lehigh.edu](mailto:qrp-1@lehigh.edu)>  
Subject: [22946] Re: Flea at MIT  
Message-ID:  
<[Pine.LNX.4.03.9810222214590.1720-100000@valhalla.valhalla.buffalo.edu](mailto:Pine.LNX.4.03.9810222214590.1720-100000@valhalla.valhalla.buffalo.edu)>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Thu, 22 Oct 1998, Myron China wrote:

> i managed to find the last MIT flea  
> it runs from 9am to 2pm and cost \$4 to >

\$3 if you brought a copy of the ad.

> xyl said she never saw so many geeks in one place. it figures.

I guess you got there after I left... I was there from 9-10 :-)) I was in a hurry to go to the International house of pancakes and say goodbye to my son and the remaining money that I had on my person. (but that is another



story)

I was hoping to see more stuff. I still need rf chokes for the BYO XCVR project. I guess I am spoiled by Dayton and the Rochester New York fest (the biggest in the northeast)

Jim (N2G0)

-----  
Date: Thu, 22 Oct 1998 21:28:05 -0500  
From: "Steve Yates, AA5TB" <aa5tb@swbell.net>  
To: n0tu@webaccess.net  
Cc: Low Power Amateur Radio Discussion <qrp-l@lehigh.edu>  
Subject: [22947] Re: BCI on 7040?? Why?  
Message-ID: <362FE9B5.3AF0F67F@swbell.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

>So does anybody know why is there's BCI on 7040?  
>  
> n0tu...steve

I have not had a chance to listen for the BCI you speak of but I may have an answer. In China and possibly some of the surrounding countries they use the lower half of the HF spectrum for domestic broadcasting. These broadcast do not conform to any of the band plans as we know them. Often in the early morning hours I can detect oriental AM broadcast on all sorts of weird frequencies below about 12 MHz. There are several strong broadcast between 6.5 and 7.0 MHz. Another notable station is at 10.060 MHz. Your ability to receive these stations will depend mostly on the gray line path crossing your location and the broadcasters location. I had been receiving the 10.060 MHz every morning unless conditions were disturbed but now the path has shifted too much and I no longer receive it. I will try and listen for the station you speak of.

I use to be a radio operator at a shore station (WFE) and in the wee hours of the morning when traffic was low I would slowly tune one of our HF communications receivers from about 10 KHz up to the MUF and log all sorts of strange broadcast that weren't where I thought they should be :-). Most of them were legit but of course there were a few pirate and political clandestine broadcast.

73

Steve Yates  
AA5TB  
aa5tb@swbell.net  
<http://home.swbell.net/aa5tb/>  
Fort Worth, Texas

-----  
Date: Thu, 22 Oct 1998 22:39:38 EDT  
From: kb9iua@juno.com (Kevin L Anderson)  
To: waltk8cv@ameritech.net  
Cc: qrp-1@Lehigh.EDU  
Subject: [22948] FOX: Happy Hound Dance -- Thanks, Walt!  
Message-ID: <19981022.214222.8135.1.kb9iua@juno.com>

Golly, Walt,

That was the earliest I've tagged a fox (within the first five minutes -- a record for me, as usually it is the last five minutes). Thanks!

I gave a shout that confused my older son -- the shack is in the basement, so he hears the shout and he goes out the front door to see who; by the time I happy dance upstairs, he is coming back in, all confused like. My wife likes to see the excitement in me as well ('bout the only times I smile openly).

Cheers/72. Kevin, KB9IUA.

BTW -- Walt was a solid signal with a steady supply of callers, but didn't sound overwhelming to me. This was at 0203 to 0205. I won't say where to be fair <grin> You shouldn't have trouble finding him near the usual calling frequencies.

\*\*\*\*\*  
Kevin Anderson, KB9IUA, Rock Island IL USA  
kb9iua@juno.com or Kevin.L.Anderson@usace.army.mil  
\*\*\*\*\*

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or call Juno at (800) 654-JUNO [654-5866]

-----  
Date: Thu, 22 Oct 1998 21:41:14 -0600 (MDT)  
From: marion@montana.com  
To: qrp-l@lehigh.edu  
Subject: [22949] hounds  
Message-ID: <199810230341.VAA26947@paw.montana.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Am I wrong or are hounds supposed to give their call ONCE? I'm hearing same calls six and seven times, and some calling when the fox is trying to work a hound. Roy AB7CE

-----  
Date: Thu, 22 Oct 1998 21:50:06 -0500  
From: "Karl Heimbach" <heimbach@concentric.net>  
To: <qrp-l@lehigh.edu>  
Subject: [22950] Ten-Tec 13XX QRP rigs for sale  
Message-ID: <018101bdfe2f\$d88b7ca0\$620505ac@pentium>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

Gang,

I've decided that an OHR 500 is in my future and therefore need to sell a couple of rigs to finance it. Selling my Ten-Tec 1340, 1330, and 1320 rigs, all assembled and working, for \$75 each plus \$3.00 shipping each.

RF output of all rigs approximately 2.5 to 3.0 watts. The 1330 and 1340 both utilize a pair of Bourne precision trimmers to limit the VFO range. Frequency coverage of the 1340 is 7.006 to 7.060 MHz. The 1330 covers 10.100 to 10.150 MHz. The 1320 covers 14.007 to 14.074 MHz and has not had the Bourne trimmers installed.

All are cosmetically excellent to mint and include manual.

Thanks,

Karl - W5QJ

-----  
Date: Thu, 22 Oct 1998 22:11:41 -0500  
From: Dave Redfearn <n4elm@texoma.net>  
To: qrp-1@lehigh.edu  
Subject: [22951] RE: FS QRP stuff  
Message-ID: <362FF3ED.1B47A7EC@texoma.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

Both the Century 21 and 277 antenna tuner are sold.

The MFJ-9020 is still for sale.

73 - Dave.

=====  
Dave Redfearn  
Email: n4elm@NOJUNKtexoma.net (to reply, remove NOJUNK)  
QRL? de N4ELM/qrp

All opinions are my own, no one else wants them.

-----  
Date: Thu, 22 Oct 1998 22:21:03 -0500 (EST)  
From: bkobie@webtv.net (patrick obrien)  
To: qrp-1@Lehigh.EDU  
Subject: [22952] antler  
Message-ID: <2773-362FF61F-1652@mailtod-131.iap.bryant.webtv.net>  
Content-Type: Text/Plain; Charset=US-ASCII  
Content-Transfer-Encoding: 7Bit  
MIME-Version: 1.0 (WebTV)  
Content-Transfer-Encoding: 7Bit

tnx for info on scorpion antler, i ordered one  
tnx again everyone, 73 pat/k8len

-----  
Date: 22 Oct 1998 22:45:53 -0500  
From: "rohre" <rohre@arlut.utexas.edu>  
To: qrp-1@Lehigh.EDU

Subject: [22953] San Diego eyeball? ITC 98 show  
Message-ID: <n1303026084.50195@msmailgw1.arlut.utexas.edu>

With 100 messages in last digest, and excessive REQUOTES by many, I will keep this brief, and ask for off list replies.

Anyone going to the International Telemetry Conference in San Diego next Mon. to Thurs.? (Town and Country Convention Center on Hotel Circle.) Oct. 26 to 29. I will be presenting in the Recorders Session.

Maybe there can be a QRP get together one evening?

Trip related QRP: Anyone have a good fix for broken BNC center pin on the Mitzuho xcvr telescoping whip antenna? The BNC center pin is part of the metal end of the base loading coil! Would a spot welder work here, like those at Battery stores who build nicad packs? Material is plated brass. No easy way to replace the BNC plug as it is built onto the coil. I can unthread the outer plug barrel, and gain access to the shank behind the center pin. If I get this fixed, I might be QRV on 10M QRP /CA.

Thanks,  
Stuart K5KVH <rohre@arlut.utexas.edu>

-----  
Date: Thu, 22 Oct 1998 22:51:31 -0500  
From: jbhenson@zebra.net (James Bartley Henson III)  
To: qrp-l@lehigh.edu  
Subject: [22954] FOX  
Message-ID: <362FFD43.670B@zebra.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

Another tough night with the fox hiding in his hole and occasionally sticking his head out. Was beginning to think he might get away this time when Walt came blasting through at 0330Z. Heard quite a few 4 and 5 land stations with an occasional 0 & 1. Best regards to all.

Jay  
N4XDW

-----  
Date: Thu, 22 Oct 1998 21:01:38 +0000

From: Bob Hightower <ki7mn@extremezone.com>  
To: marion@montana.com  
Cc: qrp-1@Lehigh.EDU  
Subject: [22955] Re: hounds  
Message-ID: <199810230353.UAA04159@enterprise.extremezone.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

At 09:41 PM 10/22/98 -0600, you wrote:

> Am I wrong or are hounds supposed to give their call ONCE? I'm  
>hearing same calls six and seven times, and some calling when the fox is  
>trying to work a hound. Roy AB7CE  
>

Right, Roy. Should be once....not a string of repeated calls. I'm tempted to post some of the calls of the offenders, but, of course I won't. And, some of them obviously can't hear the fox, as they are covering his exchange up. Really unruly this year, no?

72,73

Bob Hightower KI7MN

<http://www.extremezone.com/~ki7mn>

-----  
Date: Thu, 22 Oct 1998 23:22:11  
From: Steven Weber <kd1jv@moose.ncia.net>  
To: qrp-1@Lehigh.EDU  
Subject: [22956] Tayloe mixer, built another.  
Message-ID: <3.0.3.16.19981022232211.22d77dca@mailhost.ncia.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Okay, I built another Tayloe Mixer today, this time with an SD5002 quad FET and a combination of 'LS and 'HCT logic to sequence the fet's. Now it will go up to 8 Mhz before the x4 clock exceeds the speed limit of the 'LS part.

Some observations:

The size of the intergrating caps makes very little difference. Going form 0.22 to 0.33 ufd only slightly reduces the detected signal, even out 5 Khz.

The detector is slightly sensitive to odd harmonics of the fundimental freq it's detecting, the 3rd harmonic is the most pronouced.

A given input signal is detected ONLY when the LO is 4X the input signal.

The mixer works very nicely at 170 Khz, it would be a great Lowfer Rx.

I can see where an audio AGC whould be nice to have, to keep from blowing one's ears out when tuning across a strong signal.

Building the mixer with the parts Dan used, the PI5C3253Q bus mux and an 74ACT163 to sequence the mux, will be a lot more efficent and compact than the way I implemented it!

Now, I wonder if I have the 1% resister values around needed for the audio phase shifter?

72, and having fun :-)

Steve, KD1JV....In the White Mountains of New Hampshire

"Melt Solder"

-----  
Date: Thu, 22 Oct 1998 21:14:37 -0700  
From: tayloe\_d@juno.com (Daniel R Tayloe)  
To: mgipe@reliablemeters.com, qrp-l@Lehigh.EDU  
Subject: [22957] Re: Tayloe mixer  
Message-ID: <19981022.212014.18414.23.tayloe\_d@juno.com>

>>Actually, the voltage observed across \*each\* of the four  
>>detector caps is close (0.9x?) to the peak RF input.

>See if my reasoning makes any sense. Mixing an RF signal with a LO  
>which is offset by a small amount will yield a varying voltage on each  
>cap. Each cap will integrate the voltage applied to it for one  
>quarter of the LO cycle. The maximum voltage on this cap will be when  
>the integration takes place at the peak of the RF signal, i.e. from  
>pi/4 to 3\*pi/4. A quick calculation shows this value to be 0.9002.  
>(integral of sin, evaluated from pi/4 to 3pi/4, divided by pi/2) This  
>value will be further reduced by the roll-off of the low pass filter  
>function. At what sidetone frequency did you measure this value?

>Mike K1MG

This is exactly correct. This is were the 0.9x factor comes from. Now I am a little fuzzy on my calculus, and fellow ScQRPion Kent Torrel actually figured this out for me. This is about the loss I see on the 'scope at very low audio frequencies.

I tried for an R/C roll off that gave me an additional loss of 0.7x, or 3 db at my high end of interest, 700 Hz. If the extra roll off is

not needed, just use a smaller detector cap or a smaller series R and things will be flatter. However, I have seen up to 54 db of roll off 40 KHz away, if you are will to trade off some additional loss, in my case, at 700 Hz.

Low loss detection or better high frequency roll off or something in between. It is a tradeoff that can be made with this detector.

- Dan, N7VE

-----  
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or call Juno at (800) 654-JUNO [654-5866]

-----  
Date: Thu, 22 Oct 1998 23:11:38 -0600 (MDT)  
From: marion@montana.com  
To: ki7mn@extremezone.com  
Cc: qrp-1@Lehigh.EDU  
Subject: [22958] Re: hounds  
Message-ID: <199810230511.XAA28797@paw.montana.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

>> Am I wrong or are hounds supposed to give their call ONCE? I'm  
>>hearing same calls six and seven times, and some calling when the fox is  
>>trying to work a hound. Roy AB7CE

>>

>

>Right, Roy. Should be once....not a string of repeated calls. I'm tempted  
>to post some of the calls of the offenders, but, of course I won't. And,  
>some of them obviously can't hear the fox, as they are covering his  
>exchange up. Really unruly this year, no?

>72,73

>Bob Hightower KI7MN

>

><http://www.extremezone.com/~ki7mn>

>

Well, the majority of the hounds are pureblooded. But it only takes a few rabid mongrels to spoil the hunt. Was my first year foxhunting, looks like it will be my last. There will probably be a new foxhunting team now called the "rabid mongrels" :^) Roy AB7CE



-----  
Date: Thu, 22 Oct 1998 21:46:50 -0700  
From: gsurrency@juno.com (Gary L Surrency)  
To: marion@montana.com  
Cc: qrp-1@Lehigh.EDU  
Subject: [22959] FOX: calling frenzy  
Message-ID: <19981022.214650.10142.0.gsurrency@juno.com>

Roy wrote:

> Am I wrong or are hounds supposed to give their call ONCE? I'm  
>hearing same calls six and seven times, and some calling when the fox is  
>trying to work a hound. Roy AB7CE

Yeah, there were a lot of hounds calling before the Fox even finished his  
CQ. Maybe there was so much QRM, they can't hear the Fox that well during  
the flurry of calls.

But, more listening and less calling would sure help matters. Walt had to  
repeat his CQ FOX too often because of the terrible din.

Please, call only once and try to time your calling strategically.

Kinda reminds me of \*real\* hounds who hear other dogs barking and then  
they start howling too..... ;-)

I got Walt on one of the good QSB waves when he was about a 579 to 599.  
Pretty decent band conditions tonight.

72 all,

Gary Surrency AB7MY QRP-L #571 Chandler, AZ (near Phoenix)

-----  
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or call Juno at (800) 654-JUNO [654-5866]

-----  
Date: Thu, 22 Oct 1998 22:09:34 -0700 (PDT)  
From: Monte Stark <ku7y@dri.edu>  
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [22960] Fox & Hounds  
Message-ID: <Pine.SOL.3.96.981022215549.26834A-1000000@vortex>

MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hi All,

Strange QSB here tonight.

Walt would be a nice S3 to S5 and then just be gone! Just like he had never been there!

I think this was happening to others as well because I'd hear stations start to send their call and about then Walt would pop back into view!

I moved up in freq and tried for about 30 min and then went in for dinner.

Condx were a little better about an hour later. He only dipped down to about S1! But I did get him. I was calling up from his freq about 250 hz. I had been as far up as about 750 hz.

I thought the hounds did a good job of spreading out tonight. That helped a bunch.

I think Walt also did a fine job. Sending the call again after the report is a BIG help!

And my apologies (sp?) to all for the times I called while Walt was sending! (Another reason to move off his freq a little when calling! Gives others a chance to still copy the fox while I'm making a fool of myself!) :-)

Gad, ain't this fun?

73, Ron,       SOWP 5545M,

.....KU7Y.....ARCI #8829.....Monte "Ron" Stark.....  
....ku7y@sage.dri.edu.....Washoe Lake, Nevada....  
....QRP-L #17...ARS #49...NorCal #330.....NRA LIFE.....

-----  
Date: Thu, 22 Oct 1998 22:22:37 -0700 (PDT)  
From: KC5TJA <kc5tja@topaz.axisinternet.com>

To: qrp-1@Lehigh.EDU  
Subject: [22961] 40m conditions are abhorent!  
Message-ID: <Pine.LNX.3.96.981022221643.30104A-1000000@amethyst.axisinternet.com>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Wow... I had a sked here at 8:30PM and the band was just starting to fade. Prior to 8:00PM local time, the band was popping -- several loud stations, fast and slow CW, a few digi-droids, etc.

And then, at 8:30, it started to get more and more noisy. And finally, at 9:00, nothing -- the band was completely DEAD -- extremely low noise, and absolutely NO broadcast stations. There is a rather loud patch of noise around 7.114 to 7.120, but that was it. The noise had no discernable carrier -- I could only assume it was one of the computers that I have running in the apartment (we have 9 computers networked), and quite possibly, the cable modem.

To help combat this situation, however, I'm planning on making a center-loaded 40m shortened dipole antenna, and suitable L-network to match it (or a Pi network -- depends on what parts I can find on hand). This is why I was asking about the L-network previously. :)

I should begin construction of the antenna this weekend, and hope to have it finished by monday. This way, I can have an antenna that's entirely outside. \*grin\*

Thanks for the help in the past, and thanks for trying to contact me. Though I haven't made any contacts just yet (at all -- not even local hams!), I'm still learning, and tinkering with the antenna is, I think, the cure for now.

```
=====
      KC5TJA/6      |                      -| TEAM DOLPHIN |-
      DM13         |                      Samuel A. Falvo II
      QRP-L #1447   |                      http://www.dolphin.openprojects.net
      Oceanside, CA |.....
```

-----  
Date: Thu, 22 Oct 1998 23:32:15 -0600  
From: Jeff Johnson <jeff@san-dc.com>  
To: "qrp-1@Lehigh.EDU" <qrp-1@lehigh.edu>  
Subject: [22962] 40m conditions are abhorent!  
Message-ID: <3.0.32.19981022233213.009d9db0@san-dc.com>  
Mime-Version: 1.0

Content-Type: text/plain; charset="us-ascii"

I was just talking to Ill from Arizona and after sending a 589 he almost disappeared. I could just barely make him out. The fq was 7026.8. There was a very loud constant noise. I listen to 40m every night and haven't heard a loud one like this in a while. Interesting!

<Snip>

> The noise had no discernable  
>carrier -- I could only assume it was one of the computers that I have  
>running in the apartment (we have 9 computers networked), and quite  
>possibly, the cable modem.

>

>

>=====

|                 |  |   |
|-----------------|--|---|
| > KC5TJA/6      |  | -  TEAM DOLPHIN  -  |
| > DM13          |  | Samuel A. Falvo II  |
| > QRP-L #1447   |  | <a href="http://www.dolphin.openprojects.net">http://www.dolphin.openprojects.net</a> |
| > Oceanside, CA |  | .....   |

>

>

>

>

Jeff Johnson

KJ7LO

AZ ScQRPions

Phoenix, Arizona

-----  
Date: Fri, 23 Oct 1998 00:33:46 -0500  
From: "Rud Merriam" <rmerriam@CSI.com>  
To: "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>  
Subject: [22963] HalfSquare Antenna  
Message-ID: <000d01bdfe46\$b83ccc80\$07c2afce@sisyphus>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

Poking around last night I found the Radio Paul website with antennas advertised. He describes an antenna dubbed the HalfSquare.

It is a wavelength of wire with 1/2 horizontal and two 1/4 lengths dropped at each end. It is fed at one horizontal/vertical junction. The claim is this has lobes broadside because the verticals are in phase. The takeoff angle is low so the claim is this is good for DX but not local or even signals between local and DX. [I'm a newbie on antennas so I may have botched some terminology there - corrections gratefully accepted.] He talks about going from Europe to Japan skipping much of what is in between.

How does frequency affect this DX vs local/intermediate capability if at all?

If you angled the verticals in or out would that affect the takeoff angle? What about raising them to one side or another?

Does this make any sense? :^)}}}

I'm actually playing with 6 meters since I'm a tech. Probably going to need a stealth antenna after a QTH move next year so I'm playing now with wire antenna ideas for inside the roof. Right now I've a long wire dipole.

Another experiment is a horizontal square loop for 6m. Any comments on the characteristics of that antenna?

Rud Merriam KD5DTV  
rmerriam@csi.com

-----  
Date: Fri, 23 Oct 1998 01:56:02 EDT  
From: SKIPNC90@aol.com  
To: n0tu@webaccess.net, qrp-1@Lehigh.EDU  
Subject: [22964] Re: BCI on 7040?? Why?  
Message-ID: <df5d6546.36301a72@aol.com>  
Mime-Version: 1.0  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit  
Content-Transfer-Encoding: 7bit

Hi Steve and Gang,

I do not know the answer to this either.  
Last night at about 0300 utc on 7.010 Mhz  
I heard a station also. I thought at first it  
was a local AM station overloading my  
receiver except this station is all talk and  
the one on 7.010 Mhz was playing music.  
It was on all my receivers even on there  
pull-up antennas. Is it just at my location?  
I'll try to listen in again tonight.

73 De Skip Davis NC90

-----  
Date: Fri, 23 Oct 1998 08:22:05 +0200  
From: Paolo Sassoli <Paolo.Sassoli@italtel.it>  
To: "Qrp-l (per messaggi)" <qrp-l@Lehigh.EDU>  
Subject: [22965] Thanks for toroids info  
Message-ID: <3630208D.AA0640A4@ii1sh01.settimo.italtel.it>  
Mime-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

I want to thank all you who kindly  
responded to my request about  
toroids position in metal box.

Great List QRP-L!

Thanks.

Paolo     IK2LNH

-----  
Date: Fri, 23 Oct 1998 04:06:12 EDT  
From: ARDUJENSKI@aol.com  
To: nwq-l@scn.org, qrp-l@Lehigh.EDU  
Subject: [22966] BOBTAIL FEED QUESTION  
Message-ID: <a8e15fc5.363038f4@aol.com>  
Mime-Version: 1.0  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit  
Content-Transfer-Encoding: 7bit

In reading about the BOBTAIL most articles discuss feed with coax. Also they note you can feed anywhere along the center vertical (or even the corner of one of the end verticals) although most show at the bottom of the center wire.

QUESTION: If feeding at the bottom of the center wire and you are using open or balanced line, do you feed it as in a ZEPP or do you run a wire to a ground post and set of radials? (Assume the bottom is 10-15 ft above the ground).

Thanks in advance for your help...Alan KB7MBI

-----  
Date: Fri, 23 Oct 1998 04:49:10 -0400  
From: Henry Freedenberg <henryf@quartz.gly.fsu.edu>  
To: qrp-1@lehigh.edu  
Subject: [22967] FS TT Argonaut 509  
Message-ID: <36304305.627F0B76@quartz.gly.fsu.edu>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

Dana Wiese, N1DLD has a 509 for sale. I told Dana that 509's go for \$150-200 but his price might be negotiable. He is mostly interested in selling the rig. I have seen the rig and it is in good condition. Needs new dial cord but, other than that, should be ready to go. If you are interested contact Dana directly at:

kuhuna@cftnet.com

for more info. Do not reply to me.

Tnx

Henry

-----  
Date: Fri, 23 Oct 1998 05:42:59 -0400 (EDT)  
From: "L. B. Cebik" <cebik@utkux.utcc.utk.edu>  
To: Rud Merriam <rmerriam@CSI.com>  
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [22968] Re: HalfSquare Antenna

Message-ID: <Pine.GS0.3.96.981023053232.23588E-100000@moe.cas.utk.edu>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Rud,

The half square fed for vertical polarization (usually at one of the 2 upper corners) is a 1-band antenna for the purposes of having only low angle radiation. This radiation pattern provides skip at angle favoring DX. Nearer stations would require higher angle radiation. The pattern is nearly the same for each band you build one for. The antenna built for any one band can be pressed into service on other band, but the pattern will not be the low angle DX pattern. What it will be depends on the band and the dimensions of the antenna. If you need an all-band antenna when you upgrade, perhaps a doublet fed with parallel transmission line to an antenna tuner might be the easiest to install--stealthily or not.

The square can be fed at mid side for vertical polarization or mid horizontal for horizontal polarization. A single loop has a little gain over a dipole, but a quad beam would give directional gain and a nice front-to-back ratio. If you are thinking of a single loop, some variants of the square loop come to mind. Assuming you feed it at the mid bottom wire for horizontal use, narrowing the loop and stretching it upward will eventually yield a 50-Ohm feed impedance plus some gain over the square. There is also a further stretched rectangle with an added feed wire called the hentenna. you may find some dimensions that you can use directly or scale to your needs at some of the web sites. Some 10-meter dimensions appear in a short article I did for AntenneX, which is accessible at their site without having to subscribe (though they like subscriptions). Their site is linked from my own.

Good luck in the antenna work.

-73-

LB, W4RNL

|                      |   |           |                     |
|----------------------|---|-----------|---------------------|
| L. B. Cebik, W4RNL   | /\ /\ *   | / / /     | (Off)(423) 974-7215 |
| 1434 High Mesa Drive | / \ / \   | ----/\--- | (Hm) (423) 938-6335 |
| Knoxville, Tennessee | /\ \ \ \  | / /    /  | (FAX)(423) 974-3509 |
| 37938-4443 USA       | / \ \ \   |           | cebik@utk.edu       |
| URL:                 | <a href="http://web.utk.edu/~cebik/radio.html">http://web.utk.edu/~cebik/radio.html</a> |           |                     |



-----  
Date: Fri, 23 Oct 1998 06:30:48 -0400  
From: Peter\_Simpson@ne.3com.com  
To: qrp-1@lehigh.edu  
Subject: [22969] FOX: one ragged, slightly damaged pelt on the wall!  
Message-ID: <852566A6.003AA008.00@usboxmta.ne.3com.com>  
Mime-Version: 1.0  
Content-type: text/plain; charset=us-ascii  
Content-Disposition: inline

Well, it sure wasn't pretty, but I have to thank Walt for hanging in there until he got my name. You see, I'm cursed with something worse than a bad CW call...a bad CW name. Too many short letters makes it hard in QRM.

Anyway, Walt and the hounds were booming in here. I heard the ringleader, W8KC, in a QSO that terminated very hurridly at around 0159Z. Even though I caught a glimpse of Tim, W5FN, in the pack.

Of course, now that I have my NC40 back, the foxii always seem to like the area BELOW 7040, where my SST has no problem finding them.

Speaking of QRM, did anyone notice that the tuner-uppers and swishers seem to have given up in the face of overwhelming skill? I heard a bit of QRM, but it was clear that no amount of Spanish or tuning up was going to stop the pack. Guess it's no fun when it doesn't work :-)

Walt's idea of repeating the call of the station he is working at the END of his initial transmission was a nice touch, and one that seemed to make things go faster.

Thanks, Walt, for a fun night, and my first pelt!

72,  
Peter, KA1AXY

-----  
Date: Fri, 23 Oct 1998 05:34:52 -0500  
From: Chuck Carpenter <w5usj@webwide.net>

To: qrp-l@Lehigh.EDU  
Subject: [22970] K8CV Fox  
Message-ID: <3.0.1.32.19981023053452.00694fb8@mail.webwide.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

QRP-L Foxhunters,

Conditions at this QTH in East Texas were much better 23 Oct UTC -- no local storms. Made contact with Walt at 0300. Signal strength was fair at that time but his signal was much stronger here during the second hour, peaking about S9. During most of the first hour the most significant copy problem was stations continuing to call while the Fox was in QS0. For that reason, I felt compelled to send everything twice. I'm impressed with the Foxes and their skills at extracting a call and the information from the surge of RF called a pile up. I imagined myself as the Fox and expected that I would have much difficulty with many requests for repeats. Thanks for the pelt, Walt.

72/73, Chuck, W5USJ, Point, TX EM22cv -- ARCI #5422 QRP-L #1306

-----  
Date: Fri, 23 Oct 1998 06:49:48 -0400  
From: "Jerry W. O'Dell" <jwodell@ameritech.net>  
To: qrp-l@Lehigh.EDU  
Subject: [22971] How bout a Fox list  
Message-ID: <19981023114748.CYJZ5425@[206.141.209.17]>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Here's one that will go over like a Lead Zeppelin:

How about a separate mailing list for Fox stuff. I personally don't like contests, and I just waded through about 25 fox-related things to find some stuff that was about qrp.

Better for the dentist to be drilling than hearing about foxes. You can do foxes qro, you know.

I know you aren't going to do it! Talk about a waste of bandwidth.

73 jerry w8gnd

-----  
Date: Fri, 23 Oct 1998 06:40:35 -0500  
From: Wayne Alexander <walexan@ipa.net>  
To: jwodell@ameritech.net  
Cc: qrp-l@lehigh.edu  
Subject: [22972] Re: How bout a Fox list  
Message-ID: <199810231140.GAA21375@ns3.ipa.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

At 06:49 AM 10/23/98 -0400, you wrote:  
>Here's one that will go over like a Lead Zeppelin:

I always liked that group, seemed to play pretty good music.  
I bet you will stir up a bunch of hounds with that statement.

73,

KB0PTE

Wayne

FISTS # 4907

QRP-L # 1058

-----  
Date: Fri, 23 Oct 1998 04:59:05 PDT  
From: "DJ Rock" <b2bn@hotmail.com>  
To: qrp-l@lehigh.edu  
Subject: [22973] Re: BCI on 7040?? Why?  
Message-ID: <19981023115905.28994.qmail@hotmail.com>  
Content-Type: text/plain

Just another theory:

Could it possibly be a harmonic from an AM broadcast station? Arnie Coro  
talks about harmonic reception in a recent DXers Unlimited. check it out  
at [WWW.radiohc.org](http://www.radiohc.org)

-----  
Get Your Private, Free Email at <http://www.hotmail.com>

-----  
Date: Fri, 23 Oct 1998 08:37:39 -0400

From: Thomas Jennings <jennings@eng14.rochny.uspra.abb.com>  
To: qrp-1 <qrp-1@Lehigh.EDU>  
Subject: [22974] Fox: No Fox in Fairport, NY  
Message-ID: <36307893.5B569B66@eng14.rochny.uspra.abb.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

Hounds,

No fox heard in Fairport, NY last night. Heard plenty of hounds though.

73,

Tom, kv2x

-----  
Date: Fri, 23 Oct 1998 09:03:37 -0400  
From: Joseph Mikuckis <k3chp@erols.com>  
To: qrp-1@Lehigh.EDU  
Subject: [22975] Re Atlanticon  
Message-ID: <36307EA9.340D@erols.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

Hello QRPers:

It is gratifying to see some real interest in the possibility of organizing an annual East Coast QRP event, something along the lines of Pacificon. Some location suggestions such as Virginia Beach, VA and Valley Forge, PA would be ideal.

It was I who first posted the idea about a month ago and even proposed the name "Atlanticon." Not considering myself to be a real "mover and shaker" as far as organizational talents are concerned and because of other limitations, I will leave it to the proven experts, but would be more than willing to help behind the scenes.

Joe, K3CHP, Riverdale, MD  
k3chp@erols.com

-----  
Date: Fri, 23 Oct 1998 8:13 -0600  
From: "Karl Kanalz - Dallas" <kkanalz@optelinc.com>  
To: "Howard D Rubin" <n3fel@juno.com>, "Low Power Amateur Radio Discussion" <qrp-  
l@lehigh.edu>  
Subject: [22976] RE: materials: low loss coil forms  
Message-ID: <7A1EB427@optelinc.com>

Howard,  
If you're winding coils for VHF and UHF, the best dielectric  
is A-I-R. In fact, with rare exception, all the VHF and UHF  
construction that I've seen (and done myself) use air-wound  
coils. You might find some ceramic or plastic-form coils  
in the low frequency stages of a local oscillator chain, but  
certainly NOT at the r.f. operating frequency.

Karl K. - W8TIF  
McKinney, TX  
-----

From: Howard D Rubin  
To: Low Power Amateur Radio Discussion  
Subject: materials: low loss coil forms  
Date: Wednesday, October 21, 1998 7:43PM

QRP-L Listers:

I am researching materials and sources for the construction of low loss  
VHF/UHF coils. The ARRL handbook reviews a number of different  
materials, but  
limits their dielectric rating to 1KHz or 1MHz. The best material would  
seem  
to be Polyphenylene Sulfide Glass-reinforced R-4 which has a dissipation  
factor of 0.0014 at 1 MHz. The next best seems to be General Purpose  
Polystyrene Polymer which has a dissipation factor of 0.0001-0.0003 at 1  
KHz.

Does anyone have information at 150 and 450 MHz?  
Which material would likely be available in sturdy tubes of 3/4" O.D.  
(1/2"  
I.D.)?  
Where would I purchase these items?

Can anyone recommend a better material to use?

Howard Rubin, N3FEL

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Get completely free e-mail from Juno at <http://www.juno.com>  
or call Juno at (800) 654-JUNO [654-5866]

-----  
Date: Fri, 23 Oct 1998 06:22:39 -0700 (PDT)  
From: John Foote <w3gx@yahoo.com>  
To: qrp-l@Lehigh.EDU  
Subject: [22977] Re: Re Atlanticon  
Message-ID: <19981023132239.1522.rocketmail@send101.yahoomail.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii

This is a great idea. I would think Valley Forge is more convenient to most of the potential attendees. We could start with a small hotel meeting room and let the event grow in time to a major event.

Add my name to the list of folks who would attend. Maybe with help from those who have put on this kind of thing we could create a posted draft list of things to do to get it going and then we (we, being the QRP enthusiasts up and down the east coast) could divide the work.

When is a good time to schedule such an event?

>  
>  
---Joseph Mikuckis <k3chp@erols.com> wrote:  
>  
> It is gratifying to see some real interest in the possibility of  
> organizing an annual East Coast QRP event, something along the lines  
of  
> Pacificon. Some location suggestions such as Virginia Beach, VA and  
> Valley Forge, PA would be ideal.

==  
72 es 73 de W3GX  
John Foote  
Ashburn, Virginia near Wash. Dulles Int'l. Airport

-----  
DO YOU YAHOO!?  
Get your free @yahoo.com address at <http://mail.yahoo.com>

-----  
Date: Fri, 23 Oct 1998 09:29:51 -0400  
From: w4bws@juno.com (Donald E Sanders)  
To: jeff@san-dc.com  
Cc: qrp-1@Lehigh.EDU  
Subject: [22978] Re: 40m conditions are abhorent!  
Message-ID: <19981023.093047.3726.2.w4bws@juno.com>

Finally heard elusive fox last night at R1-2 S0-1and bursts  
of 549 to 449 on SpaceCoast of Florida. Didn't work fox  
because I couldn't hear him enough to make exchange  
and didn't want to contribute to the QRM/QRN.

Had a raw buzz saw wide band noise with some raw code  
sounding noise underneath and SSB spanish from 7038 to 7048.  
Even turned the main power circuit breaker off and used battery  
power to try to pull fox through with out any real change in noise.

Well, better luck next time, hope this colder weather will help the  
propagation and noise reduction. guess a DSP and front end  
noise reduction units are necessary.

Donald Sanders W4BWS

W4BWS@juno.com

My favorite QRP rig glows in the dark

On Thu, 22 Oct 1998 23:32:15 -0600 Jeff Johnson <jeff@san-dc.com> writes:  
> after sending a 589 he almost disappeared. I could just barely make  
him out.

>There was a very loud constant noise. I listen to 40m every night and  
>haven't heard a loud one like this in a while. Interesting!

><Snip>

> The noise had no discernable carrier -- I could only assume it was one  
of the >computers that I have running in the apartment (we have 9  
computers networked),

>and quite possibly, the cable modem.

>> KC5TJA/6 |

-| TEAM DOLPHIN |-

>>

-----  
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or call Juno at (800) 654-JUNO [654-5866]

Date: Fri, 23 Oct 98 09:41:04 EDT  
From: jeverhar@cse.l-3com.com  
To: w4bws@juno.com  
Cc: qrp-1@Lehigh.EDU, njqrp@njqrp.org  
Subject: [22979] Re: 40m conditions are abhorent!  
Message-ID: <9810231341.AA08749@train11.cse.l-3com.com>

Don, similar experiences here in NJ. The fox was pretty strong for the first 20 minutes, then faded into the night.

However the interference you mentioned (as did KC5TJA/6) was similar. I wonder if the "raw code" sounding stuff - I thought it was more of a low frequency raspy buzz - was either an ionospheric sounder or some over the horizon radat. It had to be something pretty distant to cover from NJ to FL to CA. Propagation to Eu was in there since I could weakly hear the familiar "C" beacon.

72/73,

Joe E., N2CX

You wrote:

>  
> Finally heard elusive fox last night at R1-2 S0-1and bursts  
> of 549 to 449 on SpaceCoast of Florida. Didn't work fox  
> because I couldn't hear him enough to make exchange  
> and didn't want to contribute to the QRM/QRN.  
>  
> Had a raw buzz saw wide band noise with some raw code  
> sounding noise underneath and SSB spanish from 7038 to 7048.  
> Even turned the main power circuit breaker off and used battery  
> power to try to pull fox through with out any real change in noise.  
>  
> Well, better luck next time, hope this colder weather will help the  
> propagation and noise reduction. guess a DSP and front end  
> noise reduction units are necessary.  
> Donald Sanders W4BWS  
> W4BWS@juno.com  
> My favorite QRP rig glows in the dark  
>

-----  
Date: Fri, 23 Oct 1998 13:54:42 GMT  
From: n4js@pobox.com (John Sielke)  
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [22980] Re: How bout a Fox list



Message-ID: <36338a1d.162570827@mail.snip.net>  
 MIME-Version: 1.0  
 Content-Type: text/plain; charset=us-ascii  
 Content-Transfer-Encoding: quoted-printable  
 Content-Transfer-Encoding: quoted-printable

On Fri, 23 Oct 1998 06:49:48 -0400, you typed:

```
>Here's one that will go over like a Lead Zeppelin:
>
>How about a separate mailing list for Fox stuff. I=20
>personally don't like contests, and I just waded through
>about 25 fox-related things to find some stuff that
>was about qrp.=20
>
>Better for the dentist to be drilling than hearing about
>foxes. You can do foxes qro, you know.
>
>I know you aren't going to do it! Talk about a waste
>of bandwidth.=20
```

Since the Fox is a QRP-L activity, it seems appropriate. Perhaps if you would advise what kind of mail software you are using, someone could tell you how to set a "kill filter" for messages with the word "fox" or "hound?"

(wasn't that polite? Much better than my original response.)

```

      =20
      /\  /\  /\  /\  John L. Sielke n4js@pobox.com n4js@qsl.net
      ( N ) ( 4 ) ( J ) ( S ) NJ Grid:FM29LN http://www.qsl.net/n4js
      \_/_ \_/_ \_/_ \_/_ NJ-QRP #57 QRP-L #884 QRP-ARCI ARQrp #86
      G-QRP #9544 NorCal #1989 CQC AKQRP QCWA FISTS #2781

```

Date: Fri, 23 Oct 1998 08:49:16 -0500  
From: applitech@mcg.net (Claton Cadmus)  
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [22981] Fox: Re: hounds  
Message-ID: <006601bdfe8c\$c988bc60\$a10a5e2c@groucho>

While we're on the subject of proper hound courtesy in calling the Fox, perhaps we should remember that all FOX posts are to have FOX in the subject as a courtesy to other QRP-Lers so they may filter out these messages if desired.

Thanks for listening.  
73 de Cla KA0GKC

-----  
Date: Fri, 23 Oct 1998 09:57:08 EDT  
From: d.nordquest@juno.com (David A Nordquest)  
To: qrp-l@lehigh.edu  
Subject: [22982] HB Scope Probes  
Message-ID: <19981023.100014.4671.1.d.nordquest@juno.com>

A while back there were a few posts about buying scope probes. I thought I would build some myself. The hard part seems to be getting the right kind of cable. The ART OF ELECTRONICS estimates 30pf capacitance for a three-foot length of special low-capacitance cable. A cheap old commercial probe I have tests about three times that, so I assume it uses regular coax (without markings.) Evidently regular coax can cause ringing, as well as shunting of the signal to ground. Is there any readily available type of cable that might do the trick?

I plan to build different heads onto BNC connectors and then to connect them as needed to whatever cable I can come up with.

Thanks for the suggestions!

73, Dave KE9ED

-----  
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or call Juno at (800) 654-JUNO [654-5866]

-----  
Date: Fri, 23 Oct 1998 06:55:49 -0700  
From: David Shalita <af389@lafn.org>  
To: Ham-Homebrew@ucsd.edu  
Cc: qrp-l@Lehigh.EDU  
Subject: [22983] COR make 440 AMP unstable?

Message-ID: <36308AE5.99E4231B@lafn.org>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

Hi,

I am working on a Swap Meet Special  
Outboard Class C 440mhz RF AMP with bypass COR circuit,  
(carrier operated relay). 1 watt input for 25watt output.

When AMP is operated without COR, driven directly from HT,  
AMP is stable and has clean 444 mhz and 888mhz output  
on Spectrum Analyser (SA).

When I add the bypass COR circuit that came with the AMP,  
the AMP becomes unstable, and causes MANY BLIPS  
on SA. Tuning is very erratic, power jumps up and down with  
small changes in trimmer settings.

This appears to be problem with the COR circuit  
board and it's 4 coax cables. Or, is it more subtle than that?

Can the COR be repaired, redesigned,  
or replaced with good commercial unit?

Can I use another method to BYPASS AMP during receive that  
does not make AMP unstable? Quarterwave coax and diodes?

I am looking for suggestions how to use this 25 watts RF AMP  
with my HT404X as a driver.

Thanks for any suggestions.

Can you please reply direct to me in addition to posting to DIGEST?  
Currently, I cannot receive any QRP-L DIGEST via email.  
Resubscribing did not help.  
Emailings to Jim and Chuck about this were never answered.

73, W6MIK

--

David Shalita (Dave)  
af389@lafn.org  
Van Nuys, CA

-----  
Date: Fri, 23 Oct 1998 9:15 -0600  
From: "Karl Kanalz - Dallas" <kkanalz@optelinc.com>  
To: "flyer" <flyer@hooked.net>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [22984] RE: Am I DX?  
Message-ID: <811E6D74@optelinc.com>

Yes, you are.

Karl K. - W8TIF  
McKinney, Texas  
(also "DX" to Venezuelan stations)  
-----

From: flyer  
To: Low Power Amateur Radio Discussion  
Subject: Am I DX?  
Date: Thursday, October 22, 1998 8:57AM

If YV1DIG (Venezuela) calls CQ DX on 30 meters, am I DX to him/her?

Mark Smith KF6PIL Pleasanton, CA

-----  
Date: Fri, 23 Oct 1998 07:24:32 -0700 (PDT)  
From: Monte Stark <ku7y@dri.edu>  
To: John Sielke <n4js@pobox.com>  
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [22985] Re: How bout a Fox list  
Message-ID: <Pine.SOL.3.96.981023071826.28639C-100000@vortex>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Fri, 23 Oct 1998, John Sielke wrote:

> On Fri, 23 Oct 1998 06:49:48 -0400, you typed:  
> > \*\*\* snip \*\*\*

> > Better for the dentist to be drilling than hearing about  
> > foxes. You can do foxes qro, you know.  
>

> Since the Fox is a QRP-L activity, it seems appropriate. Perhaps if

\*\*\* snip \*\*\*

> (wasn't that polite? Much better than my original response.)

Very well done John,

I just couldn't seem to get past 4 letters when explaining  
what he might want to do..... :-)

Hey, is it time for the Dayton weather reports yet?

73, Ron,        SOWP 5545M,

.....KU7Y.....ARCI #8829.....Monte "Ron" Stark.....  
....ku7y@sage.dri.edu.....Washoe Lake, Nevada....  
....QRP-L #17...ARS #49...NorCal #330.....NRA LIFE.....

-----

Date: Fri, 23 Oct 1998 07:27:34 -0700 (PDT)  
From: =?ISO-8859-1?Q?"KB=D8VCC"?= <kb0vcc@rocketmail.com>  
To: qrp-l@Lehigh.EDU  
Subject: [22986] QRP/M ...I'm hooked!  
Message-ID: <19981023142734.21866.rocketmail@web1.rocketmail.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii

A 40m OHR-100 @ 5w feeding a mag-mounted Lakeview Hamstick  
on top of my Honda Passport. 3-hr drive to work today  
and snagged a few rag-chew QSOs with little effort. I  
can't wait for the drive home this evening! Nobody said  
it was this easy! Maybe tonight it'll be DX!!!

=====  
Dale Anderson                      In the Mt Washington Valley  
KB0VCC                              Conway, New Hampshire  
QRP-L #91 / CQC #251              Grid Sq: FN43KX  
ARS #234 / FISTS #3172            <http://www.qsl.net/kb0vcc>  
=====

-----  
DO YOU YAHOO!?

Get your free @yahoo.com address at <http://mail.yahoo.com>

-----  
Date: Fri, 23 Oct 1998 10:47:06 EDT  
From: Macstein@aol.com  
To: qrp-1@Lehigh.edu  
Subject: [22987] FOX Re: 40m conditions are abhorent! and an apology  
Message-ID: <bcc9a834.363096ea@aol.com>  
Mime-Version: 1.0  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit  
Content-Transfer-Encoding: 7bit

Apology first. I'm a first time hunter and didn't know about the SEND CALL ONCE rule. Wasn't in my copy of the rules. I sent everything TWICE. (At least I didn't send SIX times! I'm sure sorry.

Now...

In a message dated 10/23/98 8:37:02 AM EST, w4bws@juno.com writes:

> Finally heard elusive fox last night at R1-2 S0-1and bursts  
> of 549 to 449 on SpaceCoast of Florida. Didn't work fox  
> because I couldn't hear him enough to make exchange  
> and didn't want to contribute to the QRM/QRN.

Much the same here near Tampa, Don. However, once I figured he was working people a hair on the high side -- I got lucky and caught him during a loud QSB wave. My Elmer SW40+ has no RIT yet. I saw one RIT circuit circulating, but heard that Dave B. was working on one -- and never saw that one. More info appreciated!

> Had a raw buzz saw wide band noise with some raw code  
> sounding noise underneath and SSB spanish from 7038 to 7048.  
> Even turned the main power circuit breaker off and used battery  
> power to try to pull fox through with out any real change in noise.

I went through the same ritual. It was almost like being on the upper part of the band with the BCI, however, I've never heard some of those funky sounds before. Some seemed to be AM harmonic. It was wierd.

> Well, better luck next time, hope this colder weather will help the  
> propagation and noise reduction. guess a DSP and front end  
> noise reduction units are necessary.

Has anyone built the W9GR DSP-3 kit? Reviews and suggestions appreciated. I was swapping back and forth between phones and my Accoustical cannon. Even with AGC, the cannon was dangerous when the hounds pounced and I was up close straining to hear the fox. OUCH!

A big thanks to Walt from a first time hound, and yes -- I really did do the happy dance -- I am unashamed.

-MAC-  
KF4KSM #704

-----  
Date: Fri, 23 Oct 1998 10:55:31 -0400  
From: "GREGORY HEATH" <KB2QQM@email.msn.com>  
To: "QRP-L (SENDING ? TO QRP-L)" <qrp-l@Lehigh.edu>  
Subject: [22989] RE: PACTOR INFO-thanks to all  
Message-ID: <0e22118581417a8UPIMSSMTPUSR04@email.msn.com>

thanks to everyone for the qrp pactor info....I plan on trying it. thanks  
to all those that gave me some direction. Greg kb2qqm

-----  
Date: Fri, 23 Oct 1998 08:07:29 +0000  
From: Robert Tellefsen <n6wg@earthlink.net>  
To: QRP-L <QRP-L@lehigh.edu>  
Subject: [22990] DX at last  
Message-ID: <36303941.4ED5@earthlink.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

Well, we haven't done so well chasing FOX this year, Ol' Kenwood and me, but Wednesday night we managed to work ZS/0E3GSA near Johannesburg, South Africa, from here on San Francisco Bay. Halfway around the world. Now that should certainly qualify for the 1000 Miles per Watt Award. Gotta write to Chuck about that.

Listened for the Tuesday and Thursday night FOXes. No joy. Interesting in that while I could hear hunters, heard none east of the Mississippi either night.

Oh, well, we'll keep digging. Gotta be at least one unwary FOX out there that we can nab :-)

72, Bob N6WG and 01' Kenwood

-----  
Date: Fri, 23 Oct 1998 11:15:25 -0400  
From: Jim Lyons <jlyons@CAM.ORG>  
To: qrp-l@lehigh.edu  
Subject: [22991] Re: Any body built any of the Vectronics kits??  
Message-ID: <3.0.5.32.19981023111525.007d3100@pop.hip.cam.org>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

>Date: Fri, 23 Oct 1998 11:03:57 -0400  
>To: KB2QQM@email.msn.com  
>From: Jim Lyons <jlyons@cam.org>  
>Subject: Re: Any body built any of the Vectronics kits??  
>In-Reply-To: <094a619161516a8UPIMSSMTPUSR03@email.msn.com>  
>  
>At 11:13 AM 10/22/98 -0400, you wrote:  
>>Hi, I was cruising thru the TechAmerica catalog this morning and noticed  
>>that they make or sell Vectronics Cw transmitter kits and Amplifier kits and  
>>Receivers....anybody tried these??  
>  
>No first hand experience but I wrked Dick, K5TF, last night on 40 and he  
was using one of the Vectronics Tx's at 1.4 W. Sounded good here in  
Montreal ... clean note good keying.  
>  
>Jim, VE2KN  
>

-----  
Date: Fri, 23 Oct 1998 11:25:53 -0400  
From: "Richard E. Robinson" <rerobins@email.uncc.edu>  
To: qrp-l@lehigh.edu  
Subject: [22992] filtering FOX posts  
Message-ID: <v03102805b2564e59e352@[152.15.144.71]>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

For those who don't want to see Fox posts, I suggest you investigate the options of you email reader. See if your email reader can set up an email filter on the "subject" field. If so, set it to filter all messages with "FOX" in the subject line and choose yourself a folder to send them to when



they are filtered.

I filter all my FOX messages to, you guessed it, my FOX folder. I have a ton of filters for spam emails that send them straight to the trashcan. I haven't seen a spam in months escape my filters, ie. everything with a "\$" in the subject line goes into the trash.

Simple fix, and you never have to see another unwanted email. Even works on the "FROM" line for anyone whose posts annoy you.

Your mileage may vary and standard disclaimers apply.

72/73,

Rick kf4ar

-----  
Date: Fri, 23 Oct 1998 08:32:58 +0000  
From: Roger Hightower <n7kt@earthlink.net>  
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [22993] Solar Energy materials  
Message-ID: <36303F3A.E8166E6C@earthlink.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

Since there have been some threads on solar power, thought I'd pass on the new URL for Mike Bryce, WB8VGE of sunLight Energy. I use his micro-P controller for my portable setup, and am quite satisfied with it. Check this page:

<http://www.seslogic.com>

--

72/73, de Roger, N7KT - QRP-L #62 - Zombie #006 - Mesa, AZ

-----  
Date: Fri, 23 Oct 1998 08:33:06 -0700  
From: Vic Rosenthal <rakefet@rakefet.com>  
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [22994] Fox: where to call  
Message-ID: <3630A1B2.D71A9B45@rakefet.com>

MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

Hounds,

I think we're missing the point when we say that the biggest problem is long calls. What I have noticed is the fox getting clobbered by calls exactly on his frequency. If we would make sure that our calls were at least 50-100 Hz off zero-beat, then even a serious timing error (we all make them) wouldn't be so, er, embarrassing.

Last night, one guy in particular was trying the 'wait till they shut up and drop in your call' trick. Unfortunately, he was always waiting too long (until the start of the fox's transmission) and he was \*exactly\* on his frequency! Thank you, Walt, for sending the call of the hound you were working at the end of your exchange.

I personally would like to see nobody but the fox exactly on his frequency, with the hounds spread out from 1 to 2 kHz on either side -- but I know this is an unpopular view!

Vic, K2VCO  
Fresno CA

-----  
Date: Fri, 23 Oct 1998 08:35:07 PDT  
From: "Brad Hernlem" <alihernlem@hotmail.com>  
To: d.nordquest@juno.com  
Cc: QRP-L@lehigh.edu  
Subject: [22995] Re: HB Scope Probes  
Message-ID: <19981023153508.26329.qmail@hotmail.com>  
Content-Type: text/plain

What kind of probes are you planning to make? 1X, 10X, active?

>A while back there were a few posts about buying scope probes. I  
thought  
>I would build some myself. The hard part seems to be getting the right  
>kind of cable. The ART OF ELECTRONICS estimates 30pf capacitance for a  
>three-foot length of special low-capacitance cable. A cheap old  
>commercial probe I have tests about three times that, so I assume it  
uses  
>regular coax (without markings.) Evidently regular coax can cause  
>ringing, as well as shunting of the signal to ground. Is there any  
>readily available type of cable that might do the trick?

>  
>I plan to build different heads onto BNC connectors and then to connect  
>them as needed to whatever cable I can come up with.  
>  
>Thanks for the suggestions!  
>  
>73, Dave KE9ED  
>  
>  
>-----  
>You don't need to buy Internet access to use free Internet e-mail.  
>Get completely free e-mail from Juno at <http://www.juno.com>  
>or call Juno at (800) 654-JUNO [654-5866]  
>  
>

-----  
Get Your Private, Free Email at <http://www.hotmail.com>  
-----

Date: Fri, 23 Oct 1998 11:30:38 -0400  
From: "Edward A Kwik jr" <[eakwikjr@hti.com](mailto:eakwikjr@hti.com)>  
To: "qrp-1@Lehigh.EDU" <[qrp-1@Lehigh.EDU](mailto:qrp-1@Lehigh.EDU)>  
Subject: [22996] fox:report  
Message-ID: <3630A11E.1B3651CA@hti.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

I thought I had this one \*in the bag\* but it turned out to be pretty  
tuff. I the fox lives 20 miles away and I work him in every qrp contest  
with 599 plus all the time. But last night:

0200 all I can hear are hounds

0225 I hear \*walt\* but nothing else

0249 I copy a full fox exchange for the first time

0300 Do I go to bed or do I hang in? Get a cup of decaff and get the AF  
and RF gains on the Triton all the way up. I short the leads of my  
window line on my 105 ft CF dipole and have two 33 ft radials on my  
tuner. It seems to help.

0330 He is slowly getting stronger but may run out of time

0345 I hear CQ Fox on a QSB peak. Shoot once. BANG. Got him.

Calls heard:

N4KZ

W8SFF Steve you were only 569 to 449

N2LO

WA9WFA

N5TW  
PETER FROM MA  
CHUCK FROM TX  
W5SNS?  
AC5II

Ed Kwik AB8DF Waterford, MI qrp-l# 1444

-----  
Date: Fri, 23 Oct 1998 18:59:31 +0300  
From: Arjen Raateland <Arjen.Raateland@vyh.fi>  
To: QRP-L <QRP-L@lehigh.edu>  
Subject: [22997] apollo beep circuit  
Message-ID: <3630A7E3.4C38@vyh.fi>  
MIME-version: 1.0  
Content-type: text/plain; charset=us-ascii  
Content-transfer-encoding: 7bit  
Content-Transfer-Encoding: 7bit

I have added an 'apollo beep' to my QRP SSB TRX White Mountain 75. The circuit came to me from an article by PA0ZR, but I added a Tune function to it. So you get a short beep after every over, and if you press button the same circuit produces a tone while activating the PTT line. This makes it easy to 'tune up'.

I have drawn up a schematic with Design Works Lite and it looks very nice when printed. However the program stores it in its own format only (CCT extension).

If somebody is interested, drop an email and I will send a short description and the CCT file as an attachment.

73, oh2zaz

--

Arjen Raateland  
Finnish Environment Institute  
SAS Support  
phone +358 9 4030 0350

-----  
Date: 23 Oct 1998 12:08:06 -0400  
From: Glen Leinweber <leinwebe@mcmail.cis.McMaster.CA>  
To: qrp-l;;  
Subject: [22998] Re: Tayloe mixer  
Message-ID: <1998Oct23.120806-0400@[130.113.234.7]>

In <362FBC92.1C024431@email.mot.com>, Dan Tayloe-P26412 wrote:

>Actually, the voltage observed across *\*each\** of the four  
>detector caps is close (0.9x?) to the peak RF input.

>

>The mixer therefore has no gain, and a little bit loss.

>Remember, I am talking loss in *\*detected voltage\**, not

>in *\*used power\**. In the passband, the detector looks

>like an open circuit, and so draws no real power.

>

Looks like Mike Gipe got the analysis right on detected amplitude, and I missed the boat.

But I'd still like to look at POWER gain.

Anytime I see extra resistance added to a circuit, then power gain usually suffers.

The differential audio amplifiers connected to the four integrating capacitors seem to have fairly high input resistance. I'm wondering about power flow from antenna to audio amp (and impedances involved).

With such small signals (and no gain), trying for power match is usually a good idea. A tangential question: would this approach compromise the excellent dynamic range that Dan measured?

Assuming that the RF port has a 50 ohm impedance, (and that is the ONLY equivalent source resistance, with no series resistance added) what audio amplifier input impedance would effect an impedance match for this mixer? Consider low audio frequencies, within the integrating caps' audio bandwidth.

If the two I & Q differential amplifiers each see a total of  $2 \times 0.9$  of the RF peak voltage, then each audio amplifier ideal input resistance should be  $1.8^2 \times 50 = 162$  ohms. N'est pas?

Glen VE3DNL

-----

Date: Fri, 23 Oct 1998 09:17:49 -0700 (MST)

From: Joe Gervais <vole@primenet.com>

To: qrp-1@Lehigh.EDU

Subject: [22999] Re: How bout a Fox list

Message-ID: <199810231617.JAA01833@usr05.primenet.com>

Howdy All,

(Back on the air in two weeks - giving my notice today.  
Whoooopeeeeeee!)

Jerry (W8GND) wrote:

> How about a separate mailing list for Fox stuff. I personally  
> don't like contests, and I just waded through about 25 fox-related  
> things to find some stuff that was about qrp.

Well... If a few hundred QRPers generating a pileup loud  
enough to impress most QRO ops ain't considered a QRP-related  
activity/topic, I'd say we've got some serious problems. If  
that doesn't count as QRP, exactly what does?

In fact if anything I'd say the one thing we're short on  
is enough people actually getting on the air and enjoying  
QRP. Plenty of talking, not enough operating. So to me, a  
small flood of folks posting about actually firing up the  
rig, honing their operating skills, and having fun is one  
of the best things going. Folks are excited about operating  
(finally!) and if it takes a Fox to do it, fine by me.

There a few QRP topics here I personally am not into, but  
they're QRP so I welcome them. Nice to see folks enjoying  
themselves. Have you considered using mail filter?

Cheers de AB7TT,

-Joe, vole@primenet.com, AZ ScQRPions (Phoenix)

"If it ain't fun, you ain't doin' it right!" -The AZ ScQRPions

-----

Date: Fri, 23 Oct 1998 16:18:04 +0100  
From: "Steve Sorrell" <ap036@detroit.freenet.org>  
To: <rakefet@rakefet.com>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [23000] Re: where to call  
Message-ID: <005301bdf98\$565902c0\$c542b3c7@default>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

Not so unpopular, great idea Vic!  
de Steve, W8SFF

-----  
Date: Fri, 23 Oct 1998 10:14:49 -0600  
From: Marty Rosenzweig <marty@mht.com>  
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [23001] Fox (read DX) Procedure  
Message-ID: <3630AB79.1573C3AF@mht.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

Obsessed pelt collectors,  
After dealing with and enjoying the Fox hunt since its inception, I have a couple of suggestions to mitigate the massive QRM problem we're all experiencing.

The exercise, due to its well deserved popularity, has all the makings of a typical dxpedition event in that we're dealing with hundreds of hounds calling a generally weak fox. Now, if you were to call a rare dx station in a pile-up on his frequency you would have little chance of working him since he is always listening up or down, and you would invoke the wrath of the DX "police" who would advise you not call on the DX's frequency (the degree of insults are proportional to the number of times you call !). During the best run operations, there is NO ONE calling on frequency and everyone can hear who the DX station is coming back to.

So I would suggest the following (for next years rules so everyone has time to make any mods, if necessary):

1. All hounds call anywhere they want but NOT on the Fox frequency.
2. All Foxii will respond ONLY to hounds calling off frequency unless they have a good reason to respond on their frequency (eg. at the end of the hunt when few stations are remaining...yeah, right!). If a rare DX station answers a "hunter" on his calling freq., it can take 10 minutes to get the pile-up under control!

WAIT...Hold your flame throwers 'til you read #3!!

3. A new Elmer program will be started to modify as many hunters' rigs as possible to at least an RIT (and RIT/XIT, if possible) capability. After all, we don't want to dissuade participants and many of the rigs out there have no RIT giving the hunter no choice but to call on frequency. Yes, there will be some who can't/won't modify their rigs but the Fox event will wallow and eventually die due to its own popularity if some changes aren't made! Do we want to encourage poor

operating practices or apply technology to upgrade our rigs!

Have a good CQWW!

72,

Marty, W00Q  
marty@mht.com

-----  
Date: Fri, 23 Oct 1998 16:33:17 +0100  
From: "Steve Sorrell" <ap036@detroit.freenet.org>  
To: "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>  
Subject: [23002] Joy Oh Joy!  
Message-ID: <000101bdfe9a\$776ea300\$a142b3c7@default>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

OHR 500 just arrived! Oh Happy Day, doing happy dance in Mich. Tippy tap  
tippy tap. Off to the work bench, soldering iron heating up and optical  
goggles on. WOWZERS! Life is good!  
Steve Sorrell, W8SFF

-----  
Date: Fri, 23 Oct 1998 12:23:11 -0400  
From: "Kevin F. Glynn" <kfglynn@prodigy.net>  
To: "QRP-L" <qrp-l@lehigh.edu>  
Cc: <prvalko@oakland.edu>  
Subject: [23003] FOX: Announcement - 28 Oct 0100-0300 UTC de N2TO  
Message-ID: <199810231629.MAA82240@pimout3-int.prodigy.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=ISO-8859-1  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

Hi gang,

I'll be the Fox this Tuesday evening:



Date/Time: 28 Oct 0100-0300 UTC  
Rig: Kenwood TS-520SE with CW filter  
Freq: 7.038, but will QSY as needed between 7.030 - 7.050. Will announce QSYing.  
Output Power: 5 watts  
Ant: 40M bent-leg dipole up about 45' (more exact number later)  
Keyer/Paddle: MFJ Grandmaster 484c, Kent iambic  
Sending Speed: about 18-20 WPM  
Call: CQ FOX de N2T0 K  
Exchange: <UR CALL> RST NY Kevin NR 323 <UR CALL> BK (Thanks Walt K8CV!)

If you could do the following it'd help me tremendously:

Please call only once and match my speed. I can copy faster, but with nerves shot not sure how successfully. If I do not copy a call I'll either send part of a call I copy or a ?. If only part, I'll send part I copy and only that station return call. I'll be using my RIT (TS-520SE is +/- 2 kHz). I believe this is a necessity at times since I've been copying wind chimes for the past couple of weeks with all the stations calling at the same time.

I ask your patience this Tues night. This is my first shot at this, and I'm in the office now typing on my lunch hour and not at the Yankee tickertape parade downtown (actually Met fan so you should pity me...) I can't tell you how intense it is at those parades. I've attended a few; notably the Rangers in 94 and Mets in 86.

Thanks again and see you Tuesday.

72 Kevin N2T0  
Brooklyn, NYC  
kfglynn@prodigy.net

-----  
Date: Fri, 23 Oct 1998 12:29:21 -0400  
From: "Kevin F. Glynn" <kfglynn@prodigy.net>  
To: <rakefet@rakefet.com>, "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [23004] Re: where to call  
Message-ID: <199810231635.MAA79340@pimout3-int.prodigy.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=ISO-8859-1  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

I believe Vic's right. Although many do not have RIT capabilities, at times I've been copying wind chimes the past couple of weeks. Rigs used

were my Icom IC-728 and Kenwood TS-520SE, with filter and OHR SCAF audio filter (Sam Ulbing N4UAU's design).

Have many of you actually tried to listen to calls, as if you were the Fox? How'd you fare? I'm not trying to start anything, just want to point out that it's often quite tough to copy anything among the chimes.

72 Kevin N2T0  
Brooklyn, NYC  
kfglynn@prodigy.net

-----  
Date: Fri, 23 Oct 1998 12:58:41 -0400  
From: "Jerry W. O'Dell" <jwodell@ameritech.net>  
To: qrp-l@lehigh.edu  
Subject: [23005] Fox solution  
Message-ID: <19981023175640.DEH05425@[206.141.209.242]>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Well, I sort of have the solution. Simply use the filter on my mail reader, and all that will be blissfully gone.

I do protest the statement of some that fox hunting is a qrp activity exclusively. That's nuts.

Actually, I think there are some other qrp groups. That may be the real solution.

Thanks to all who gave the filter suggestion.

73 jerry w8gnd

-----  
Date: Fri, 23 Oct 1998 10:07:32 -0700 (PDT)  
From: KC5TJA <kc5tja@topaz.axisinternet.com>  
To: Jeff Johnson <jeff@san-dc.com>  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [23006] Re: 40m conditions are abhorrent!  
Message-ID: <Pine.LNX.3.96.981023100438.16143E-100000@amethyst.axisinternet.com>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Thu, 22 Oct 1998, Jeff Johnson wrote:

> I was just talking to Ill from Arizona and after sending a 589 he almost  
> disappeared. I could just barely make him out. The fq was 7026.8. There  
> was a very loud constant noise. I listen to 40m every night and haven't  
> heard a loud one like this in a while. Interesting!

Yes, I heard this too. I was listening to a rather loud QSO from KF6L0P  
(Frank -- didn't catch a last name, but that's OK) close to 7120. He  
faded in and out of complete obscurity quite regularly. And though he was  
really quite loud for me (I'm assuming he was QRO), I couldn't hear the  
other station he was talking to at all.

Why didn't I contact him? Well, at 9:00PM my time, the band went  
completely dead. Even the background noise all but disappeared. :( I  
couldn't even hear any BC stations!

And, not only that, but he insisted on using the KN comeback, instead of  
just K. I considered it rude to just barge in then, so I didn't bother.

```
=====
      KC5TJA/6      |                               -| TEAM DOLPHIN |-
      DM13          |                               Samuel A. Falvo II
      QRP-L #1447   |                               http://www.dolphin.openprojects.net
      Oceanside, CA |.....
```

-----

Date: Fri, 23 Oct 1998 10:15:32 -0700 (PDT)  
From: KC5TJA <kc5tja@topaz.axisinternet.com>  
To: jeverhar@cse.l-3com.com  
Cc: Low Power Amateur Radio Discussion <qrp-l@lehigh.edu>  
Subject: [23007] Re: 40m conditions are abhorrent!  
Message-ID: <Pine.LNX.3.96.981023101341.16143F-100000@amethyst.axisinternet.com>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Fri, 23 Oct 1998 jeverhar@cse.l-3com.com wrote:

> However the interference you mentioned (as did KC5TJA/6) was similar. I wonder  
> if the "raw code" sounding stuff - I thought it was more of a low frequency  
> raspy buzz - was either an ionospheric sounder or some over the horizon radat.

I didn't hear any "raw code", or any carrier of any kind. I just heard  
what sounded like a "ball-o-noise" (TM) with roughly 4kHz bandwidth. It  
did seem to move slowly about the band though. Sometimes it was there,  
sometimes it wasn't.

I wonder if it'd be beneficial to RDF those kinds of things. You know, to get those damned UFOs off our bands!! RAH!

Maybe not... \*grin\*

```
=====
      KC5TJA/6      |      -| TEAM DOLPHIN |-
      DM13          |      Samuel A. Falvo II
      QRP-L #1447   |      http://www.dolphin.openprojects.net
      Oceanside, CA |.....
```

-----

Date: Fri, 23 Oct 1998 12:28:54 -0500 (CDT)  
From: Jim Glover <psykey@okcforum.org>  
To: qrp-l@Lehigh.EDU  
Cc: okcham@okcforum.org  
Subject: [23008] all-band CW XCVR w/AD9850 VFO  
Message-ID: <199810231728.MAA05196@okcforum.org>  
Content-Type: text

Hi, everyone!

Not too long ago, someone posted about a project using the Analog Devices AD9850 DDS chip, controlled by a PIC chip, to make a VFO. My investigation into that idea has really got my gears turning, and I am just beginning to bake an idea about an entire HF transceiver design based on this. (That is to say, the idea is somewhere short of being "half-baked" at this point. I'm hoping you guys can supply some of the heat to help finish the baking!)

In a nutshell, my plan is to use the AD9850 DDS chip, control it with my computer's parallel port (instead of the PIC chip that the project which caught my attention uses), and use that VFO signal as the local oscillator in a DC receiver, and as a driver for a broadband HF amplifier.

Some advantages of this design:

--Coverage off all HF bands from 1.8 through 30 MHz. (cw only)

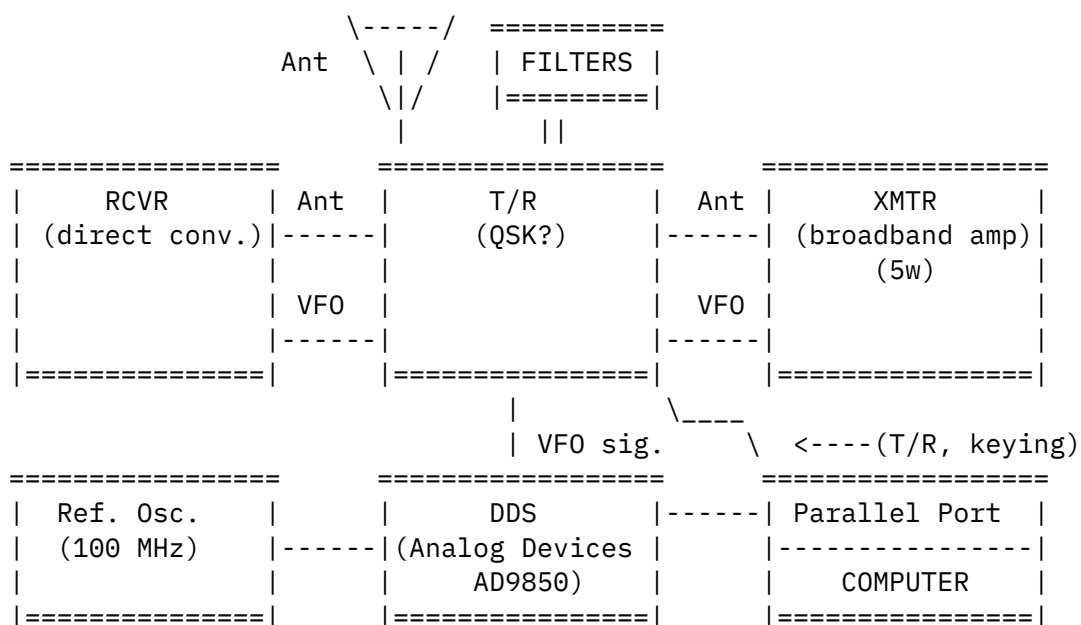
--General coverage reception.

--Most of the control logic and the user interface would be in the software running on the computer. Many nice features could be implemented through simple programming.

--In general, this project gives me a lot of "bang for the buck". Typical QRP projects either cover only one band, or cost a great deal. Covering all the HF bands with typical QRP transceivers can cost as much as (ooh...ick!) just going out and buying one of those QRO multi-band thing-a-ma-bobbers.

--This project also suits my skill level. I've never designed anything like this before, and I'll have a lot to learn to pull this one off. If mastering DC receivers, broadband HF amps, T/R switching, and all the other RF bugaboos that this brings up can get me an all-band HF QRP CW transceiver, that'll be a pretty good deal. The only skill needed for this project which I already have nailed down is the computer programming. Perhaps the rest will be do-able.

OK, now here's the more detailed version of the design plan up till now. There's an ASCII block diagram here, so view this with a fixed font (such as Courier) for proper alignment.



Receiver--

The receiver will be a direct conversion receiver. The VFO signal will serve as the local oscillator.

Transmitter--

The transmitter section will consist of a 5 watt broadband HF amp which will amplify the VFO signal.

T/R--

Transmit/receive switching will switch the antenna and VFO between the transmitter and receiver. I'm also thinking about having it switch some filters. A fair amount of the logic for T/R (including perhaps QSK) could come from the software running on the computer. The T/R module would only have to handle the actual switching.

#### Filters--

The AD9850 (the DDS chip) probably should be followed by some LP (or bandpass) filtering. Bandpass filtering might also be a good idea at the receiver input, to help reduce spurious responses. A bandpass filter for each amateur band could be switched between the transmitter and receiver as needed to fulfill both of these needs. (For between-bands reception, the filter could simply be eliminated.)

#### Reference Oscillator--

The AD9850 requires a reference oscillator. The maximum speed for that oscillator is 125 MHz. According to the spec sheets for the AD9850, the reference oscillator must be at least 2X the highest frequency to be generated. 100 MHz should be comfortably fast enough to handle anything through 30 MHz out of the VFO. A canned oscillator chip is probably what I'll choose to serve this function.

#### AD9850 DDS VFO--

The Analog Devices AD9850 Direct Digital Synthesis (DDS) chip is designed to generate an RF signal in the form of a reasonably pure sine wave. The parameters are set (or re-set as needed) by sending a few control bytes to the chip.

#### Computer--

The computer's function is to send the control words to the AD9850 as needed, control T/R switching, and provide the user interface (frequency control, keying, etc.). The software could easily be written to provide for things like T/R offset, RIT, memory keying, frequency memories, scanning (albeit without any way to freeze on active channels), automatic bandswitching, etc.

And now, for my first batch of questions:

--I anticipate that many will say, "Why not just do the receiver right, and make it a superhet?" This would be counter to my efficiency goals. The challenge to both my financial and design/building resources must be minimized. Within those constraints, what kind of DC receiver would you recommend? Someone has suggested the R5, but that one strikes me as a bit complex for my skill level. However, I'd love to have that single-signal feature. Can anyone recommend a DC receiver design that's single-signal, capable of 1.8-30 MHz reception, and yet, simple?

--Can anyone recommend good easily-built bandpass filters? I'd imagine that steep skirts are not important, but fairly deep attenuation of way-out-of-band signals would probably be a good thing.

--What kind of techniques should I consider for the T/R switching? (Again...the logic can be mostly in the software. I'm just wondering what I should do for the actual switching itself.) Would reed relays be the answer? ...something else? (I realize I may need to learn more about how QSK is done to implement that.)

--I've been told that Solid State Design for the Radio Amateur describes a broadband HF amplifier circuit that might be suitable for this project. Would anyone like to comment on that, or recommend other ideas?

--Would anyone like to recommend a good reference oscillator circuit?

--How are DC receivers at receiving AM signals? Can they just listen to one sideband and get by that way? Would this project also be a decent SWL receiver, or will it be CW/SSB only?

Of course, in addition to these specific questions, I'd welcome any further comments anyone would like to make on any aspect of this design. This is my first significant RF design project, and it will certainly be taxing my abilities. I have a great deal to learn about all aspects of this project. Just about any pointers, ideas, comments, or recommendation would be useful to me.

73 es 72,  
Jim WB5UDE

-----  
Date: Fri, 23 Oct 1998 10:21:13 -0700  
From: "Michael A. Gipe" <mgipe@reliablemeters.com>  
To: <leinwebe@mcmail.cis.McMaster.CA>, "Low Power Amateur Radio Discussion" <grp-1@Lehigh.EDU>  
Subject: [23009] Re: Tayloe mixer  
Message-ID: <076101bdfea9\$8bffb0c0\$140a0a0a@double\_trouble.reliablemeters.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

Glen makes some very good points:

> But I'd still like to look at POWER gain.

>Anytime I see extra resistance added to a circuit, then  
>power gain usually suffers.  
> The differential audio amplifiers connected to  
>the four integrating capacitors seem to have fairly  
>high input resistance. I'm wondering about power flow  
>from antenna to audio amp (and impedances involved).

This is a good thing to think about. Generally, when you are dealing with very small signals, like in a receiver, it is best to match stages for maximum transfer of power. If you don't, you can add gain to overcome the lowered power transfer, BUT, and it's a big but, you get murdered by the noise. For example, if you terminate a ring mixer with a 50 ohm resistor for wideband termination, then use this mixer output to drive an op amp with a 10k input (let's assume that all the op amp noise sources have been rolled into this equivalent resistance), you can get as much gain as you need. However, the thermal noise is proportional to the square root of the resistance, so the noise contribution of the op amp is much higher than it would be in a 50 ohm system. In fact, if I've done my calculations correctly, you have just made your noise figure worse by 23 dB!

>  
> With such small signals (and no gain), trying  
>for power match is usually a good idea. A tangential  
>question: would this approach compromise the excellent  
>dynamic range that Dan measured?  
> Assuming that the RF port has a 50 ohm  
>impedance, (and that is the ONLY equivalent source  
>resistance, with no series resistance added) what  
>audio amplifier input impedance would effect an  
>impedance match for this mixer? Consider low audio  
>frequencies, within the integrating caps' audio  
>bandwidth.  
> If the two I & Q differential amplifiers  
>each see a total of  $2 \times 0.9$  of the RF peak voltage,  
>then each audio amplifier ideal input resistance  
>should be  $1.8^2 \times 50 = 162$  ohms. N'est pas?

How about this logic? The output impedance of one of the Tayloe Mixer outputs will be the reactance of the capacitor in parallel with the equivalent input source impedance, incorporating series R, switch on-resistance and previous stage output impedance. (Hmmm, is this previous stage impedance at the RF freq or the audio?) The mixer output impedance will vary with frequency. Of course, we should expect this because it has an inherent filter characteristic.

For example:



Assume a total series R -- including switch, actual series R, and antenna or preamp output impedance -- of 50 ohms. The equivalent source impedance would be, according to Glen's excellent concept of commutating impedance, four times this, or 200 ohms for each capacitor. Also assume 0.33uF caps, and a desired signal frequency of 650 Hz.

The output impedance would be 157.5 ohms single ended, or 315 ohms differential across two outputs.

If you terminated the mixer with this resistance, I would expect the output voltage to drop to half its open circuit level, indicating that maximum power transfer is occurring.

Can you try this, Dan?

Where's the flaw in the logic?

Mike K1MG

-----  
Date: Fri, 23 Oct 1998 10:21:48 -0700 (PDT)  
From: KC5TJA <kc5tja@topaz.axisinternet.com>  
To: "Richard E. Robinson" <rerobins@email.uncc.edu>  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [23010] Re: filtering FOX posts  
Message-ID: <Pine.LNX.3.96.981023102015.16143G-1000000@amethyst.axisinternet.com>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Fri, 23 Oct 1998, Richard E. Robinson wrote:

> haven't seen a spam in months escape my filters, ie. everything with a "\$"  
> in the subject line goes into the trash.

\*evil grin!\*

Heheh -- now we all know how to post a message so that everyone on here can see it, except you. \*grin\*

Who proposes a huge pile-up on KF4AR the next time he's on? (evil grin)  
We can coordinate the effort, without Rich ever knowing what's going on!

j/k!!

```
=====
      KC5TJA/6      |      -| TEAM DOLPHIN |-
      DM13          |      Samuel A. Falvo II
      QRP-L #1447   |      http://www.dolphin.openprojects.net
      Oceanside, CA |.....
```

-----

Date: Fri, 23 Oct 1998 10:37:02 -0700 (PDT)  
From: KC5TJA <kc5tja@topaz.axisinternet.com>  
To: Marty Rosenzweig <marty@mht.com>  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [23011] Re: Fox (read DX) Procedure  
Message-ID: <Pine.LNX.3.96.981023102943.16143H-100000@amethyst.axisinternet.com>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Fri, 23 Oct 1998, Marty Rosenzweig wrote:

> 3. A new Elmer program will be started to modify as many hunters' rigs  
> as possible to at least an RIT (and RIT/XIT, if possible) capability.  
> After all, we don't want to dissuade participants and many of the rigs  
> out there have no RIT giving the hunter no choice but to call on  
> frequency. Yes, there will be some who can't/won't modify their rigs  
> but the Fox event will wallow and eventually die due to its own  
> popularity if some changes aren't made! Do we want to encourage poor  
> operating practices or apply technology to upgrade our rigs!

I have made this observation last night, while trying to call CQ on 7110kHz. What if I call CQ, and my next door neighbor, who hears my call simply because our antennae are so close (I WISH I had a ham for a neighbor!), answers a little bit higher up from me? Quite frankly, I don't hear it!

I have an SW-40+, which is quite clearly a lower sideband receiver only, with a very tight bandwidth. As I tune higher in frequency, any stations I hear increase in frequency as well -- intuitive enough, depending on how you look at it.

BUT you can't here anyone who's calling you on a frequency that's higher than your own. With an SW-40, you MUST call ON or below the frequency of the SW-40+.

For this reason, I usually sway my tuning about my calling frequency, to see if anyone is trying to return my calls. I think this is where RIT

would come in handy -- keeps your TX frequency set once, and you're free to move the RX frequency as needed.

I LOVE the SW-40+ -- damned good rig. But I do wish it had a RIT control as well. :)

OR, am I misunderstanding the use of the SW-40+? When I transmit, is the RX/TX frequencies always different (ie., is the RX frequency always 700Hz above the TX frequency)?

```
=====
      KC5TJA/6      |                      -| TEAM DOLPHIN |-
      DM13          |                      Samuel A. Falvo II
      QRP-L #1447   |                      http://www.dolphin.openprojects.net
      Oceanside, CA |.....
```

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Date: Fri, 23 Oct 1998 13:40:38 -0400  
From: "Richard E. Robinson" <rerobins@email.uncc.edu>  
To: qrp-l@lehigh.edu  
Subject: [23012] K8CV Fox  
Message-ID: <v03102801b2566df0021a@[152.15.144.71]>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Conditions in south-central NC were good, but boy what a pileup Walt had. I bagged him about 0230Z while the XYL qrm'ed me with "When are you going to take the dog out?".

Fox got bagged, dog got relief. It was a good night.

Thanks Walt for the first pelt of the season!

72/73,

Rick kf4ar

-----

Date: Fri, 23 Oct 1998 13:29:18 -0400  
From: Ronald\_A\_Pfeiffer@res.raytheon.com  
To: qrp-l@Lehigh.EDU  
Subject: [23013] re:where to call  
Message-ID: <852566A6.00600ECB.00@ressud-as01.res.ray.com>

Mime-Version: 1.0  
Content-type: text/plain; charset=us-ascii  
Content-Disposition: inline

If your going to change the rules why not let the fox QSY if the jam is so bad he can't cpy? That way hunters do not need RIT.

Also would keep hunters on their toes as now if you find him you just pounce on the same freq until you get him. Hunters would have to think about where the fox is for the whole time period.

Just another opinion.

Ron - N1ZSW

-----  
Date: Fri, 23 Oct 1998 18:43:06 +0000  
From: "Frank G3YCC" <g3ycc@g3ycc.prestel.co.uk>  
To: qrp-l@lehigh.edu, gqrp-l@blacksheep.org  
Subject: [23014] Want a simple rig?  
Message-ID: <E0zWlEA-000658-00@hen.scotland.net>  
MIME-Version: 1.0  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7BIT  
Content-Transfer-Encoding: 7BIT

New material on my web site, like a circuit for an 80m CW rig  
- check in often!

-----  
Date: Fri, 23 Oct 1998 10:40:22 -0700 (PDT)  
From: Monte Stark <ku7y@dri.edu>  
To: QRP-L <qrp-l@lehigh.edu>  
Subject: [23015] Fox for 30 Oct 98  
Message-ID: <Pine.SOL.3.96.981023095613.29936C-100000@vortex>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hi All,

I will be the Fox on Friday AM GMT. That's 0200z to 0400z, 30 Oct 98.

Notice that this is Thursday night, 29 Oct local time. Part of the Fox Learning Channel is to understand how to convert between your local date/time and GMT or UTC or ZULU. :-)

I will try to be near 7037. But that all depends on activity.

Get on at least ten minutes before Fox time. Tune the band from 7030 to 7050. Notice what is happening where.

I will NOT be on a frequency where there is already a QSO in place unless I just can't hear it! Watch for a large empty space. That is what I'll be looking for.

I will call CQ FOX and then listen 200 hz UP from my frequency. I will move up 200-300 hz after each QSO. When I get to the top of the Hunters I'll come back to my frequency + 200 hz.

This will be done to keep my frequency clear as I can.

But listen closely.... I just might tune down below my frequency in 200-300 hz steps also. We will see how the pile up goes.....

For those who don't have either RIT or XIT don't dispare. I will look on my freq now and then. For those who must call on my freq, please only call once and then listen for me.

Use QSK if you have it. With S1 signals it's not much good but if the sig is up around S4 or better you should be able to hear me while you are sending. If that happens STOP sending. Don't finish your call. This lets whoever I called hear me!

I will be running 5w output measured with the OM-1 wattmeter. (I think that's the right name!) The rig will be the FT 1000MP.

The antenna is a 2 ele yagi at 85'. It will start out pointed at about 70 degs. This will be good for the CA stations off the back and the East to N/E off the front.

Most of the TX/AZ gang have been loud with the antenna there too but I'll move it to around 100+ degs as needed.

That will also help the N/W stations.

I will also have the vertical hooked up just in case.....

I will send the exchange in the following manor:

[YourCall] RST NV RON #17 [YourCall]

After getting all the data OK I will send:

QSL TU

The CQ's and all CallSigns will be sent at 25 wpm.

The rest of the exchange will be at 30 wpm.

Another goal of the Fox Hunts is to help people learn how to handle DX stations that are too fast for them to copy. One way to do this is to listen to the exchange over and over. Copy a letter here and a letter there. Soon you have the whole exchange!

When you hear me send:

QSL TU

That's time for you to send your call.

To be sure that I follow the 10 minute ID rule I'll send:

QSL DE KU7Y FOX

now and then.

Don't forget that a major part of the Fox Hunt is to learn how to play in pile-ups and survive! Here is where it's OK to error. This is a great place to learn. Try out your ideas on how to get "in the log".

Just jump in and give it a try. There is NO WAY that you can find a NEW way to embarrass yourself.... Most of us have already done that and then some in the past. Sometimes not all that distant past either! :-)

I would much rather have people making all kinds of QRM than to not have people playing! Even if someone gets upset by multiple calls, most don't really care. We never learn anything if we don't give it a try.

And every time you get into a pile up you learn something.  
What worked? What didn't? What did you do differently when  
you got the Fox? Why did he hear you that time and not  
the other 50 times you called? If you can ever really  
answer that question, you could write a book and get  
rich!

Looking forward to working you all this Thursday night  
Friday morning!

cul,

73, Ron,       SOWP 5545M,

.....KU7Y.....ARCI #8829.....Monte "Ron" Stark.....  
....ku7y@sage.dri.edu.....Washoe Lake, Nevada....  
....QRP-L #17...ARS #49...NorCal #330.....NRA LIFE.....

-----

Date: Fri, 23 Oct 1998 10:40:55 -0700  
From: W7LS <w7ls@blarg.net>  
To: d.nordquest@juno.com  
Cc: qrp-l@lehigh.edu  
Subject: [23016] Re: HB Scope Probes  
Message-ID: <3630BFA7.1F8F@blarg.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

Hi. Unless you're doing it just for the fun of it, I'd pick up a probe or  
two at a ham fleamarket or surplus store. I see them all the time for ten  
bucks. And that's Tektronix, with the high-tech cables, and so on.

73 de JIm, W7LS

David A Nordquest wrote:

>

> A while back there were a few posts about buying scope probes. I thought  
> I would build some myself. The hard part seems to be getting the right  
> kind of cable. The ART OF ELECTRONICS estimates 30pf capacitance for a  
> three-foot length of special low-capacitance cable. A cheap old  
> commercial probe I have tests about three times that, so I assume it uses  
> regular coax (without markings.) Evidently regular coax can cause  
> ringing, as well as shunting of the signal to ground. Is there any  
> readily available type of cable that might do the trick?

>  
> I plan to build different heads onto BNC connectors and then to connect  
> them as needed to whatever cable I can come up with.  
>  
> Thanks for the suggestions!  
>  
> 73, Dave KE9ED  
>  
>  
> -----  
> You don't need to buy Internet access to use free Internet e-mail.  
> Get completely free e-mail from Juno at <http://www.juno.com>  
> or call Juno at (800) 654-JUNO [654-5866]

-----  
Date: Fri, 23 Oct 1998 10:55:33 -0700  
From: "Michael A. Gipe" <[mgipe@reliablemeters.com](mailto:mgipe@reliablemeters.com)>  
To: <[jwodell@ameritech.net](mailto:jwodell@ameritech.net)>, "Low Power Amateur Radio Discussion" <[qrp-1@Lehigh.EDU](mailto:qrp-1@Lehigh.EDU)>  
Subject: [23017] Re: Fox solution  
Message-ID: <077401bdfeae\$575ed800\$140a0a0a@double\_trouble.reliablemeters.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

Jerry --

Please don't take offense at the responses you may get to your complaint about fox postings.

However, please don't expect the fox postings to be discouraged or moved elsewhere. One of the founding purposes of QRP-L is to report on fox hunts, believe it or not.

The fox hunt is a QRP-L sponsored activity, much as Field Day is an ARRL sponsored activity. The hunt is planned, announced, monitored, and managed on QRP-L by QRP-L members. While other folks are welcome to join in any of the hunts, the activity is not publicized elsewhere, and the progress reports are only available to QRP-L members. You wouldn't expect the ARRL to outlaw Field Day reports and announcements in QST.

None other than Chuck Adams, the founder and manager of QRP-L, has publicly announced that fox hunt messages are part of the purpose of QRP-L, and are to be encouraged. This is official QRP-L list policy and will not change.



Of course, in a group as large as this one, not everyone will have the same interests within the QRP world. As a favor to those whose interests do not include QRP-L foxhunting, all posts on the topic should have a subject line beginning with "FOX:". This allows those who are not interested to automatically filter out all the fox messages. You can't get any more accommodating than that.

QRP-L was formed with the mission of fostering QRP, facilitating sharing of knowledge in QRP, improving our technical skills, and improving our operating skills. The foxhunt was conceived as one vehicle for accomplishing all four of these goals. I know that it has been successful at my station, where I can thank the foxhunts for helping me improve my knowledge of antenna theory, weak signal reception, close operating techniques, etc. And the foxhunt would not be as successful at these without the QRP-L list to serve as coach. Without it, I would not have been able to consult LB Cebik about antenna mysteries in the foxhunts, and I would not be able to consult Ron Stark about operating techniques, and so on.

I believe that even those who do not participate in the hunts can learn from the posts which follow, if they so desire. That is reason alone to keep the foxhunt messages on the list, instead of moving them to a side list.

So, Jerry, I would encourage you to use your mailer to filter out the "Fox:" messages and use the time you save to contribute to the list in areas which are closer to your own interests, since I am certain that there are many of us on the list who also share some of those interests.

Enjoy!

Mike K1MG

>...

>I do protest the statement of some that fox hunting is a qrp  
>activity exclusively. That's nuts.

>...

>73 jerry w8gnd

-----  
Date: Fri, 23 Oct 1998 14:03:39 -0400  
From: "Jerry W. O'Dell" <jwodell@ameritech.net>  
To: qrp-l@lehigh.edu

Subject: [23018] Killing foxes  
Message-ID: <19981023190140.DFJG5425@[199.179.190.147]>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Thanks to all those who proposed the obvious -- just  
use the filters on Eudora to eliminate the pesky beasties.

However, without them, there seems to be little in qrp-l.  
Oh, well, I don't like the Beatles either!

73 jerry w8gnd

-----  
Date: Fri, 23 Oct 1998 12:39:10 -0600  
From: Jeff Johnson <jeff@san-dc.com>  
To: "qrp-l@Lehigh.EDU" <qrp-l@Lehigh.EDU>  
Subject: [23019] Re: 40m conditions are abhorent!  
Message-ID: <3.0.32.19981023123908.00a6abc0@san-dc.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

"ball-o-noise" describes what I heard. I thought this same thing was  
reported last week. Someone mentioned "a noise" moving slowly accross 40  
meters. Very interesting.

At 10:15 AM 10/23/98 -0700, you wrote:

>On Fri, 23 Oct 1998 jeverhar@cse.l-3com.com wrote:

>

>> However the interference you mentioned (as did KC5TJA/6) was similar. I  
wonder

>> if the "raw code" sounding stuff - I thought it was more of a low  
freuqeuncy

>> raspy buzz - was either an ionospheric sounder or some over the horizon  
radat.

>

>I didn't hear any "raw code", or any carrier of any kind. I just heard  
>what sounded like a "ball-o-noise" (TM) with roughly 4kHz bandwidth. It  
>did seem to move slowly about the band though. Sometimes it was there,  
>sometimes it wasn't.

>

>I wonder if it'd be beneficial to RDF those kinds of things. You know, to  
>get those damned UFOs off our bands!! RAH!

>  
>Maybe not... \*grin\*

>

>=====

|                 |  |   |
|-----------------|--|---|
| > KC5TJA/6      |  | -  TEAM DOLPHIN  -  |
| > DM13          |  | Samuel A. Falvo II  |
| > QRP-L #1447   |  | <a href="http://www.dolphin.openprojects.net">http://www.dolphin.openprojects.net</a> |
| > Oceanside, CA |  | .....   |

>

>

>

Jeff Johnson  
KJ7LO

AZ ScQRPions

Phoenix, Arizona

-----

Date: Fri, 23 Oct 1998 13:36:13 -0500  
From: Jim <kj5tf@madisoncounty.net>  
To: qrp-l@lehigh.edu  
Subject: [23020] CQWW - SSB QRP  
Message-ID: <3630CC9D.3771@madisoncounty.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

Looking at the contest page in this months QST for info on the cqww test  
I see they list QRP as 5w or less. While I think ARCI considers SSB QRP  
to be 10 watts.

If I enter this cqww test as QRP is it 5w or 10w?  
If its 5w that'll be fine, I just want to be sure QST didnt put 5w when  
it should be 10w.

It might be fun to chase some DX this weekend on 10M and keep score. If  
my fellow Arkansas QRP'ers lay out of this or dont send in there score I  
might have a chance on some wallpaper! hi!

Jim AR QRP #2

-----

Date: Fri, 23 Oct 1998 15:07:37 -0400  
From: Tom Cooper <cooper@gmpvt.com>

To: qrp-1@lehigh.edu  
Subject: [23021] ARRL Sweepstakes is almost here....  
Message-ID: <3.0.5.32.19981023150737.007b3a50@web.gmpvt.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Yo to everyone!

The great-granddaddy, and still the best, of all CW contests will be starting at 4PM EST on Saturday Nov. 14 and I hope each and every one of you will be participating this year. Last year there was a BIG bunch of QRP stations in it, including N5TJ (reigning world champ and all-time high scorer in ALL the SS power categories) whose score was an eye opener for a lot of QRO types. Who knows, maybe QRP will be the category of choice for other big guns now that the gantlet has been flung down.

This contest is one where you really do have to copy the exchange, and it WILL raise your code speed, particularly if you do the whole 24 hours that are allowed. You will dream in CW for a day or two.

If your code speed isn't very brisk or your antenna is low, short and surrounded by big metal buildings, you can still make HUNDREDS of contacts. This contest is long enough for at least a couple of changes in band conditions, so don't get discouraged if the sledding is kind of rough for a while. Whatever you do, don't give up until you have worked W1EAT!

72,

Tom W1EAT

-----  
Date: Fri, 23 Oct 1998 12:08:28 -0700 (PDT)  
From: KC5TJA <kc5tja@topaz.axisinternet.com>  
To: Frank G3YCC <g3ycc@g3ycc.prestel.co.uk>  
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [23022] Re: Want a simple rig?  
Message-ID: <Pine.LNX.3.96.981023120753.21547B-100000@amethyst.axisinternet.com>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Fri, 23 Oct 1998, Frank G3YCC wrote:

> New material on my web site, like a circuit for an 80m CW rig  
> - check in often!

Recently, I've been having trouble accessing your web site. Especially regarding magnetic loop antennae. Any idea when those links will be fixed, if at all? Thanks. :)

```
=====
KC5TJA/6      |                      -| TEAM DOLPHIN |-
DM13          |                      Samuel A. Falvo II
QRP-L #1447   |                      http://www.dolphin.openprojects.net
Oceanside, CA |.....
```

-----

Date: Fri, 23 Oct 1998 12:19:16 -0700 (PDT)  
From: KC5TJA <kc5tja@topaz.axisinternet.com>  
To: qrp-l@lehigh.edu  
Subject: [23023] Re: Killing foxes  
Message-ID: <Pine.LNX.3.96.981023121424.21547C-100000@amethyst.axisinternet.com>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Fri, 23 Oct 1998, Jerry W. O'Dell wrote:

> However, without them, there seems to be little in qrp-l.  
> Oh, well, I don't like the Beatles either!

I dunno about that. The whole fiasco with Dan's product detector (not mixer!) produced a major flurry of discussion, sporadic as it was.

What I find most irritating on this list are the discussions of hamfests. While I know that hamfests are fun and cool, there's just something about them that I wish weren't on the list. I usually just skip over those messages. Perhaps it's because I know that I can't be at a hamfest -- there's apparently no such thing in the San Diego area. :)

(Who wants to start a MAJOR hamfest somewhere between Oceanside and San Diego? :) I figure the parking lot of Fry's Electronics should suffice \*grin\* )

And I'm tired of working like a dog on a hard day's night, and spending my time in front of a computer eight days a week. (Obvious Beatles references!)

(/me ducks from the flying chairs! \*grin\*)

```
=====
KC5TJA/6      |                      -| TEAM DOLPHIN |-
DM13          |                      Samuel A. Falvo II
```

QRP-L #1447 | http://www.dolphin.openprojects.net  
Oceanside, CA | .....

-----  
Date: Fri, 23 Oct 1998 12:21:22 -0700 (PDT)  
From: KC5TJA <kc5tja@topaz.axisinternet.com>  
To: Jim <kj5tf@madisoncounty.net>  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [23024] Re: CQWW - SSB QRP  
Message-ID: <Pine.LNX.3.96.981023122011.21547D-100000@amethyst.axisinternet.com>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Fri, 23 Oct 1998, Jim wrote:

> Looking at the contest page in this months QST for info on the cqww test  
> I see they list QRP as 5w or less. While I think ARCI considers SSB QRP  
> to be 10 watts.

Commonly accepted convention is a double standard, in this area. For  
morse code, QRP is 5W. For SSB, it's 10W. So both references are  
correct.

> If its 5w that'll be fine, I just want to be sure QST didnt put 5w when  
> it should be 10w.

Depends on your mode of operation.

=====  
KC5TJA/6 | -| TEAM DOLPHIN |-  
DM13 | Samuel A. Falvo II  
QRP-L #1447 | http://www.dolphin.openprojects.net  
Oceanside, CA | .....

-----  
Date: Fri, 23 Oct 1998 13:24:53 -0600 (MDT)  
From: Paul Harden <pharden@aoc.nrao.edu>  
To: qrp-l@lehigh.edu  
Cc: GQRP-L List <gqrp-l@blacksheep.org>  
Subject: [23025] Re: 40m conditions are abhorent!  
Message-ID: <Pine.SOL.3.91.981023130537.3870A-100000@zia>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

I just checked all the space/geomagnetic weather stuff, and I don't see anything on the plots that would explain a sudden period of excessive noise ... except the solar wind remains high (750km/sec) from the coronal hole outflow and the direction of the solar wind took a few shifts in direction. At 750km/sec (1200 miles/sec), it probably doesn't take much of a shift in solar wind direction to re-wiggle (new scientific term!) the magnetic field and make more noise.

The outflow from a coronal hole often times is in "streams." Some streams can flow along with the solar wind, other streams can assume a much higher speed ... and are called "high speed coronal streams." These can be fairly small in terms of width and height. In other words, they can miss the satellites that measure these things all together but still collide with our magnetic field. Also, coronal streams can pass in front of the Earth, and we'll plow through it a day or two later. Again, satellites that measure this stuff could be missed altogether. If this is the case, then today's solar/geomagnetic report will probably say something like "the geomagnetic field remained active, likely due to a high speed coronal stream." Just means that all the sensors did not detect anything, but since a coronal hole outflow is occurring, then it doesn't leave much except an "unseen" coronal stream that kept our magnetic field agitated.

On the otherhand, a solar wind of 750km/sec., by itself, is sufficient to keep our magnetic field in a mildly disturbed state.

Neat stuff, huh?

Remember though ... these geomagnetic disturbances primarily effect 40M and below, while 30M and above are left fairly quiet. The transition frequency between geomagnetic and solar effects is around 10MHz, making 30M a rather unique band in seldom being effected by geomagnetic storms, and almost always less than the MUF for reliable skip propagation.

72, Paul NA5N

-----

Date: Fri, 23 Oct 1998 15:28:06 -0400  
From: Scott Howell <whowell@hq.nasa.gov>  
To: qrp-l@lehigh.edu  
Subject: [23026] antennas and condos, some good news  
Message-ID: <3.0.5.32.19981023152806.00815550@mail.hq.nasa.gov>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

well folk, I went ahead and did what I think may have been the proper thing. I spoke to the board president who is a friend of mine and happens

to share many of the views I do.

In any case I ran my desire to have an outdoor antenna past him and hiding it as a flag pole etc. He thought this was quite reasonable and asked I write some basic guidelines for both Ham antennas and satellite dishes. I think overall the board will support the idea. So, anyone who has suggestions for verbage I should consider, please now send my way. Here is a good opportunity to at least beat them at their own game. It is possible to set a precedence. I figure I could put something out there and just see what happens, but this way I can still do that and I some how don't think they'd make me take a flag pole down.

So, in either case I'll win, but why not at least try to get a resolution in the by-laws.

tnx es 73 de Scott/n3bbyy

-----  
Date: Fri, 23 Oct 1998 12:42:46 +0000  
From: Roger Hightower <n7kt@earthlink.net>  
To: cooper@gmpvt.com  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [23027] Re: ARRL Sweepstakes is almost here....  
Message-ID: <363079C6.32C92B4@earthlink.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

Your dates are wrong. The CW test is Sat, Nov 7 and the SSB test is Sat, Nov 21.

See the October QST, page 118 for rules, etc.

--  
72/73, de Roger, N7KT - QRP-L #62 - Zombie #006 - Mesa, AZ

-----  
Date: Fri, 23 Oct 1998 14:00:50 -0600 (CST)  
From: "Brian.Buydens@usask.ca" <buydens@duke.usask.ca>  
To: KC5TJA <kc5tja@topaz.axisinternet.com>  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [23028] Re: Killing foxes  
Message-ID: <Pine.OSF.4.02A.9810231353040.2895-1000000@duke.usask.ca>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Fri, 23 Oct 1998, KC5TJA wrote:



> On Fri, 23 Oct 1998, Jerry W. O'Dell wrote:

> (Who wants to start a MAJOR hamfest somewhere between Oceanside and San  
> Diego? :) I figure the parking lot of Fry's Electronics should suffice  
> \*grin\* )

Someone might be starting a new hamfest near San Diego? I say "Let it Be". I'm sure some will take a magical mystery tour down the long and winding road to get there. I won't because I have no time. Maybe when I'm sixty-four. ;-)

> And I'm tired of working like a dog on a hard day's night, and spending my  
> time in front of a computer eight days a week. (Obvious Beatles  
> references!)

```
+-----+
| Brian Buydens,           Computing Services, University of Saskatchewan |
| email: Brian.Buydens@usask.ca           http://duke.usask.ca/~buydens |
| VE5RDV                                     |
+-----+
| DO NOT ADD ME TO ANY MAILING                               No keyboard present |
| LISTS WITHOUT MY CONSENT !!!                               Hit F1 to continue |
|                                                           Zen engineering? |
+-----+
```

-----  
Date: Fri, 23 Oct 1998 16:08:50 -0400  
From: Ed Tanton <n4xy@att.net>  
To: whowell@hq.nasa.gov  
Cc: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [23029] Re: antennas and condos, some good news  
Message-ID: <3.0.5.32.19981023160850.00bdfda0@postoffice.worldnet.att.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Go for approval of: "inobtrusive, barely visible-if at all-outdoor antennas" made from: "wire antennas hidden by/through trees, or run under fence railings"; and: "wire antennas using thin, virtually-invisible, wires"; and finally: "antennas virtually indistinguishable from familiar objects, such as roof vent pipes and flagpoles." All of these statements are not absolute, yet do define relatively well usable antennas that could not be seen or distinguished by passers-by-even next door neighbors. Be

73

"Think you can, think you can't: either way you're right!" Henry Ford

```
At 12:42 PM 10/23/98 +0000, you wrote:
>Your dates are wrong.  The CW test is Sat, Nov 7 and the SSB test is
>Sat, Nov 21.
>
>See the October QST, page 118 for rules, etc.
>--
>72/73, de Roger, N7KT - QRP-L #62 - Zombie #006 - Mesa, AZ
>
>
```

Date: Fri, 23 Oct 1998 16:09:30 -0400 (EDT)



>differential across two outputs.

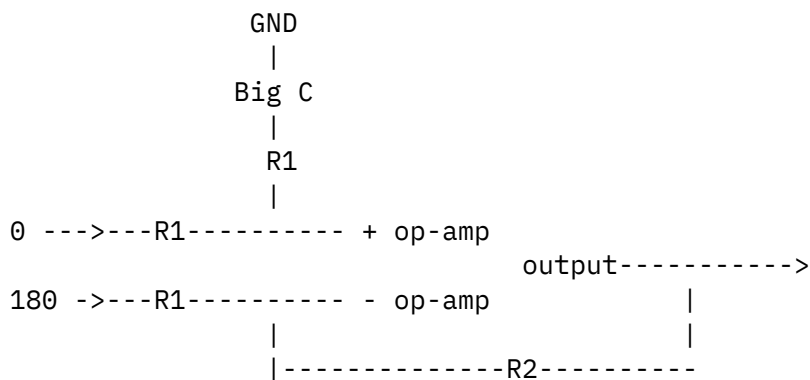
>If you terminated the mixer with this resistance, I would expect the  
>output voltage to drop to half its open circuit level, indicating that  
>maximum power transfer is occurring.

>Can you try this, Dan?

>Where's the flaw in the logic?

>Mike K1MG

My suming amp looks something like this:



I started with R1= 2.2K, and R2 = 240K. About 40 db of gain.  
When I first started things, I was using a much higher input R.

I ripped everything apart (if you saw my rig at Pacificon, you know that is an interesting feat), and changed R1 to 450, and R2 to 50K. My gain dropped off significantly. I think I lost 10 db. So I tore everything apart again, and restored the original resistor.

It may be that the circuit I used above is not quite right. I have been wondering about the R1 connected to the big cap. This might not be necessary for the balanced circuit, and might be throwing things out of wack. Input on that?

- Dan, N7VE

-----  
Date: Fri, 23 Oct 1998 14:18:16 -0600  
From: "Peter Hardie" <hardie@shaw.wave.ca>

To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [23033] Re: CQWW - SSB QRP  
Message-ID: <3630E488.5A168FE7@shaw.wave.ca>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

KC5TJA wrote:

> Commonly accepted convention is a double standard, in this area. For  
> morse code, QRP is 5W. For SSB, it's 10W.

A more precise definition of the accepted power limit for QRP SSB  
is 10W \*PEP\* - thus, the average power output is lower than 10W.

73 de Pete VE5VA

-----  
Date: Fri, 23 Oct 1998 16:38:15 EDT  
From: PDouglas12@aol.com  
To: qrp-l@lehigh.edu  
Subject: [23034] Subj: Re: Fox solution  
Message-ID: <82babfb3.3630e937@aol.com>  
Mime-Version: 1.0  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit  
Content-Transfer-Encoding: 7bit

Gang,

I hope this doesn't offend anyone, but the Mike Gipe is right. The Fox hunts are an integral part of QRP-L and don't belong being moved off the the list. Indeed, we have some history by this time, the list being more than four years old with millions of words in the archives. Periodically, folks suggest that we change the list from a mailist form to a newsgroup or some other format. This idea has been rejected by the founders, and, despite being declared dead, rises like a....zombie. (Small "z" here, this is unrelated to our Norcal club!)

Similarly, folks periodically suggest that we take foxhunts, 30m propagation studies, Dayton, FDI, and other qrp related activities off the list. We even tried it one year with Dayton and FDI being moved to a companion list. It didn't work. Indeed, we wound up having to post to both lists if we wanted everyone to get an announcement.  
So, let's try to keep this list the successful entity it is, and, following

the Adams Principle of DFW (If it works, then DON'T FOOL WITH it!), I propose we table this discussion for another few years, until someone else thinks of it.

72,

Preston Douglas WJ2V

-----  
Date: Fri, 23 Oct 1998 13:42:38 -0700  
From: Andy Fox <foxes@theriver.com>  
To: pharden@aoc.nrao.edu  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [23035] Re: 40m conditions are abhorent!  
Message-ID: <3630EA3D.A0DA19A4@theriver.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

Paul et al.,

This is an example of one of the most interesting and useful group of posts on this list. Please keep 'em coming!

73 de Andy, KK7HV - Tucson, AZ

-----  
Date: Fri, 23 Oct 1998 16:55:13 -0400  
From: "Floyd Soo, W8RO" <hires@rust.net>  
To: QRP-L <qrp-l@lehigh.edu>  
Subject: [23036] FS: HW-8  
Message-ID: <3630ED30.4E7A1696@rust.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

Gang,

I have a friend that is interested in selling his Heathkit HW-8. Please contact him (not me) for more details!

Call Dave, KG8WH, at (810) 765-9407 for the details!

Tnx

--  
73,  
Floyd Soo, W8RO  
President, HI-RES Communications, Inc.  
Board Member, Collins Collectors Assn. (#002)  
QRP-L (#396)  
hires@rust.net  
<http://www.rust.net/~hires>

-----  
Date: Fri, 23 Oct 1998 16:49:40 -0400  
From: Richard Sherman <[srichard@aldus.northnet.org](mailto:srichard@aldus.northnet.org)>  
To: [qrp-l@Lehigh.EDU](mailto:qrp-l@Lehigh.EDU)  
Subject: [23037] Re: CQWW - SSB QRP  
Message-ID: <3.0.1.32.19981023164940.007c7840@aldus.northnet.org>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

One goes by the rules set by the contest/awards committee. If the rules state 5w PEP is QRP for SSB then 5w PEP it is, not 10w PEP. The QRP-ARCI definition applies only to QRP-ARCI awards and contests.

72 de Rick WZ2T NNY

[srichard@northnet.org](mailto:srichard@northnet.org)  
---If you're not part of the solution,  
You're part of the precipitate.---  
Steven Wright

-----  
Date: Fri, 23 Oct 1998 14:14:50 -0700 (PDT)  
From: KC5TJA <[kc5tja@topaz.axisinternet.com](mailto:kc5tja@topaz.axisinternet.com)>  
To: "Brian.Buydens@usask.ca" <[buydens@duke.usask.ca](mailto:buydens@duke.usask.ca)>  
Cc: Low Power Amateur Radio Discussion <[qrp-l@Lehigh.EDU](mailto:qrp-l@Lehigh.EDU)>  
Subject: [23038] Re: Killing foxes  
Message-ID: <Pine.LNX.3.96.981023141351.3306A-1000000@amethyst.axisinternet.com>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Fri, 23 Oct 1998, [Brian.Buydens@usask.ca](mailto:Brian.Buydens@usask.ca) wrote:

> > (Who wants to start a MAJOR hamfest somewhere between Oceanside and San  
> > Diego? :) I figure the parking lot of Fry's Electronics should suffice  
> > \*grin\* )  
>  
> Someone might be starting a new hamfest near San Diego? I say "Let it  
> Be". I'm sure some will take a magical mystery tour down the long and

I think you may have misunderstood my humor, but I was basically asking if  
anyone would like to start one. :) Currently, there are no national  
hamfests anywhere in my entire county.

```
=====
      KC5TJA/6      |                      -| TEAM DOLPHIN |-
      DM13         |                      Samuel A. Falvo II
      QRP-L #1447   |                      http://www.dolphin.openprojects.net
      Oceanside, CA |.....
```

-----  
Date: Fri, 23 Oct 1998 15:16:24 MDT  
From: "Jerry McCollom WOMC" <w0mc@hotmail.com>  
To: qrp-l@lehigh.edu  
Subject: [23039] Reminder: 10K 10-Turn Pot Group Buy  
Message-ID: <19981023211624.9199.qmail@hotmail.com>  
Content-Type: text/plain

Hello everyone,

Here's a reminder about the group buy for the 10K 10-Turn potentiometer.  
Your response so far has been outstanding!! I've already received  
about half of the total orders, this in the first week since I announced  
the price!

There's still time to sign up if you haven't already. Our group buy  
price is \$7.00 per pot + \$3 Priority Mail shipping. For those who order  
a single pot, I will accept \$2.00 shipping to send it first class  
instead. It looks like \$4.00 US will cover orders sent to Canada via  
global priority mail.

I'll place the order the first week in November, so the deadline for  
payments is November 7th.

!! Now, here now are your instructions for completing your order: !!

1) Include a self-addressed mailing label please!

2) Calculate the amount you should send me. If you can, include



the order form below or some other reasonable facsimile (either print this or write it on paper or a QSL card, anything is fine).

----- 8< cut here 8< -----

Name and Callsign: \_\_\_\_\_

Quantity: \_\_\_\_\_ x \$7.00 = \$\_\_\_\_\_

Shipping: \_\_\_\_\_ \$ 3 . 0 0

(Single pots can send \$2.00,  
Canada, please include \$4.00)

Total: \_\_\_\_\_ = \$\_\_\_\_\_

----- 8< cut here 8< -----

- 3) Please send a check or money order in US Funds payable to Jerry McCollom. I cannot accept checks made out to Norcal.
- 4) Put the mailing label, order form, and payment in an envelope and mail it to:

Jerry McCollom, W0MC  
1442 Silk Oak Drive  
Fort Collins, CO 80525

I'm sending out individual confirmations when I receive payments.

It's still not too late to join in, just drop an order in the mail. (Do send me some e-mail too at w0mc@hotmail.com so I know it's coming.)

Don't forget, I need all payments on or before November 7th!

72 de Jerry W0MC                      QTH Fort Collins, CO  
w0mc@hotmail.com                    QRP-L #800

-----  
Get Your Private, Free Email at <http://www.hotmail.com>

-----  
Date: Fri, 23 Oct 1998 14:20:18 -0700 (PDT)  
From: Monte Stark <ku7y@dri.edu>  
To: Low Power Amateur Radio Discussion <qrp-l@lehigh.edu>  
Subject: [23040] Re: Fox for 30 Oct 98

Message-ID: <Pine.SOL.3.96.981023141819.5108C-100000@vortex>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

NOTICE!!!

ERROR in the time!

I will be the Fox from 0100z to 0300z, 30 Oct 98.

Sorry about that folks!

This might help catch the band before it's so long  
and is why I went for the 0100z starting time. Don't  
know why I put it down wrong in the post.

Thanks to Alan for pointing it out to me.

73, Ron,        SOWP 5545M,

.....KU7Y.....ARCI #8829.....Monte "Ron" Stark.....  
....ku7y@sage.dri.edu.....Washoe Lake, Nevada....  
....QRP-L #17...ARS #49...NorCal #330.....NRA LIFE.....

-----

Date: Fri, 23 Oct 1998 14:21:01 -0700 (PDT)  
From: KC5TJA <kc5tja@topaz.axisinternet.com>  
To: Paul Harden <pharden@aoc.nrao.edu>  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [23041] Re: 40m conditions are abhorrent!  
Message-ID: <Pine.LNX.3.96.981023141541.3306B-100000@amethyst.axisinternet.com>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Fri, 23 Oct 1998, Paul Harden wrote:

> I just checked all the space/geomagnetic weather stuff, and I don't  
> see anything on the plots that would explain a sudden period of  
> excessive noise ... except the solar wind remains high (750km/sec)

I'm not getting excessive noise across the band; it's just one, 4kHz to  
8kHz swatch of the band, and it shifts about the band slowly.

I do get a very quiet band, though, after 9:00PM pacific time (what is  
that, 0200Z?). It's like someone turns out the light -- everything just  
fades and fades, and I don't hear a THING.

```

=====
KC5TJA/6      |                               -| TEAM DOLPHIN |-
DM13          |                               Samuel A. Falvo II
QRP-L #1447   |                               http://www.dolphin.openprojects.net
Oceanside, CA |.....

```

```

-----
Date: Fri, 23 Oct 1998 15:08:18 -0700
From: "Michael A. Gipe" <mgipe@reliablemeters.com>
To: "QRP-L list" <qrp-l@Lehigh.edu>, "Dan Tayloe" <Dan_Tayloe-
P26412@email.mot.com>
Subject: [23042] Re: Tayloe mixer
Message-ID: <087001bdfed1$a63f53f0$140a0a0a@double_trouble.reliablemeters.com>
MIME-Version: 1.0
Content-Type: text/plain;
      charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

```

Dan et al --

Some comments on the diff amp circuit:

The resistor connected to 'Big cap' should be equal to R2.

One of the problems with this standard circuit is that the load it places on the two inputs is not equal (balanced). The inverted input will see a lowered impedance because it is driving into a node which has the opposite input signal on it. This is why this circuit is quite often preceded by a pair of non-inverting buffers, making a three op-amp circuit.

Also, when you do lower the impedance, you will see the output voltage of the mixer drop. You can make up the loss with gain later. The tradeoff, I think, is better noise performance. Of course, this is only possible if you are using op-amps whose internal input noise is low enough. Somebody please correct me if my thinking is flawed here. After all, it is Friday.

Mike K1MG

>  
>My suming amp looks something like this:

<<circuit deleted>>

>

>I started with R1= 2.2K, and R2 = 240K. About 40 db of gain.

>When I first started things, I was using a much higher input R.

>

>I ...R1 to 450, and

>R2 to 50K. My gain dropped off significantly. I think I lost

>10 db. So I tore everything apart again, and restored the

>original resistor.

>

-----  
Date: Fri, 23 Oct 1998 18:14:02 -0400

From: Paul Kaczmarek <catmandu@freewwwweb.com>

To: QRP-L@Lehigh.EDU

Subject: [23043] Z Match Cap Question

Message-ID: <3630FFAA.44ED@freewwwweb.com>

MIME-Version: 1.0

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

Content-Transfer-Encoding: 7bit

I was interested in building a Z-Match ATU. I was following the thread on to special linked caps but I don't recall anyone ever finding a source for the variable linked caps. If I missed it I'm sorry and could someone please update me with with what the final outcome was.

Thanks in advance,

Paul KB2TPA

--

Paul Kaczmarek KB2TPA QRPL # 1297 USMC <>< Cheektowaga NY

TT-Argosy, Sierra, WM-2, QRP-A/T

-----  
Date: Fri, 23 Oct 1998 16:33:49 -0600

From: "Peter Hardie" <hardie@shaw.wave.ca>

To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>

Subject: [23044] Re: CQWW - SSB QRP

Message-ID: <3631044D.9091503B@shaw.wave.ca>

MIME-Version: 1.0

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

Content-Transfer-Encoding: 7bit

Richard Sherman wrote:

> One goes by the rules set by the contest/awards committee.

Indeed you are correct. The ARRL rule for SSB is 5W PEP.

73 de Pete VE5VA

-----  
Date: Fri, 23 Oct 1998 17:25:05  
From: Steven Weber <kd1jv@moose.ncia.net>  
To: Dan\_Tayloe-P26412@email.mot.com  
Cc: qrp-l@lehigh.edu  
Subject: [23045] Re: Tayloe mixer  
Message-ID: <3.0.3.16.19981023172505.2a8f2eac@mailhost.ncia.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

>  
>>The output impedance would be 157.5 ohms single ended, or 315 ohms  
>>differential across two outputs.  
>>If you terminated the mixer with this resistance, I would expect the  
>>output voltage to drop to half its open circuit level, indicating that  
>>maximum power transfer is occurring.  
>  
>I started with R1= 2.2K, and R2 = 240K. About 40 db of gain.  
>When I first started things, I was using a much higher input R.  
>It may be that the circuit I used above is not quite right. I  
>have been wondering about the R1 connected to the big cap.  
>This might not be necessary for the balanced circuit, and might  
>be throwing things out of wack. Input on that?  
>

Well, I used 10 K input resistors and 100K feedback R's on the op amps for the test circuit I built. Got lots of those values :-)

Anyway, the way I figured it was, we are looking at a voltage developed across the caps. We don't want to unduely load the caps with extenuous leakage currents or otherwise affect the charge/discharge rate. The idea here is not to transfer power, but to perserve the voltage waveform developed across the caps.

It might be best to use a high impedance input amplifier here, say an instrumentation type amp, where the caps only see the input current to the op amp and not the feedback currents. However, that takes 3 op amps for each I and Q channel and is probably over kill. My proto uses enough parts

as it is, hi.

I connected the feedback resistor on the + leg of the op amp to the 1/2Vcc voltage divider that also biases the input of the analog gates (through a 10 K resistor to the gates, though I think an RF choke would be okay, if not better) The divider is bypassed for audio and RF.

Best I can tell, I'm getting the [input signal x 0.9] out of the detector.

Steve, KD1JV....In the White Mountains of New Hampshire

"Melt Solder"

-----  
Date: Fri, 23 Oct 1998 16:41:53 -0600  
From: Dick Schneider <rschneid@ix.netcom.com>  
To: qrp-l <qrp-l@Lehigh.EDU>  
Subject: [23046] Fox calling procedure feedback welcome  
Message-ID: <36310631.37E39A35@ix.netcom.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit  
Content-Transfer-Encoding: 7bit

BTW--if anything I do in calling the Fox actually interferes with the Foxhunt, like calling real late right on top of the Fox's freq., pse feel free to send me a private email (no flames welcome, tho). This would be in the category of corrective surgery on operating practice and would be most welcome. I tend to call late - but I am trying to call only once. Sometimes calling just once is not easy to do. I also tend to chase the fox from the other side of the shack - so I get some other work done and then, from time to time, race over to make a few calls.

72 Dick AB0CD..

-----  
End of QRP-L Digest 1253

\*\*\*\*\*  
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